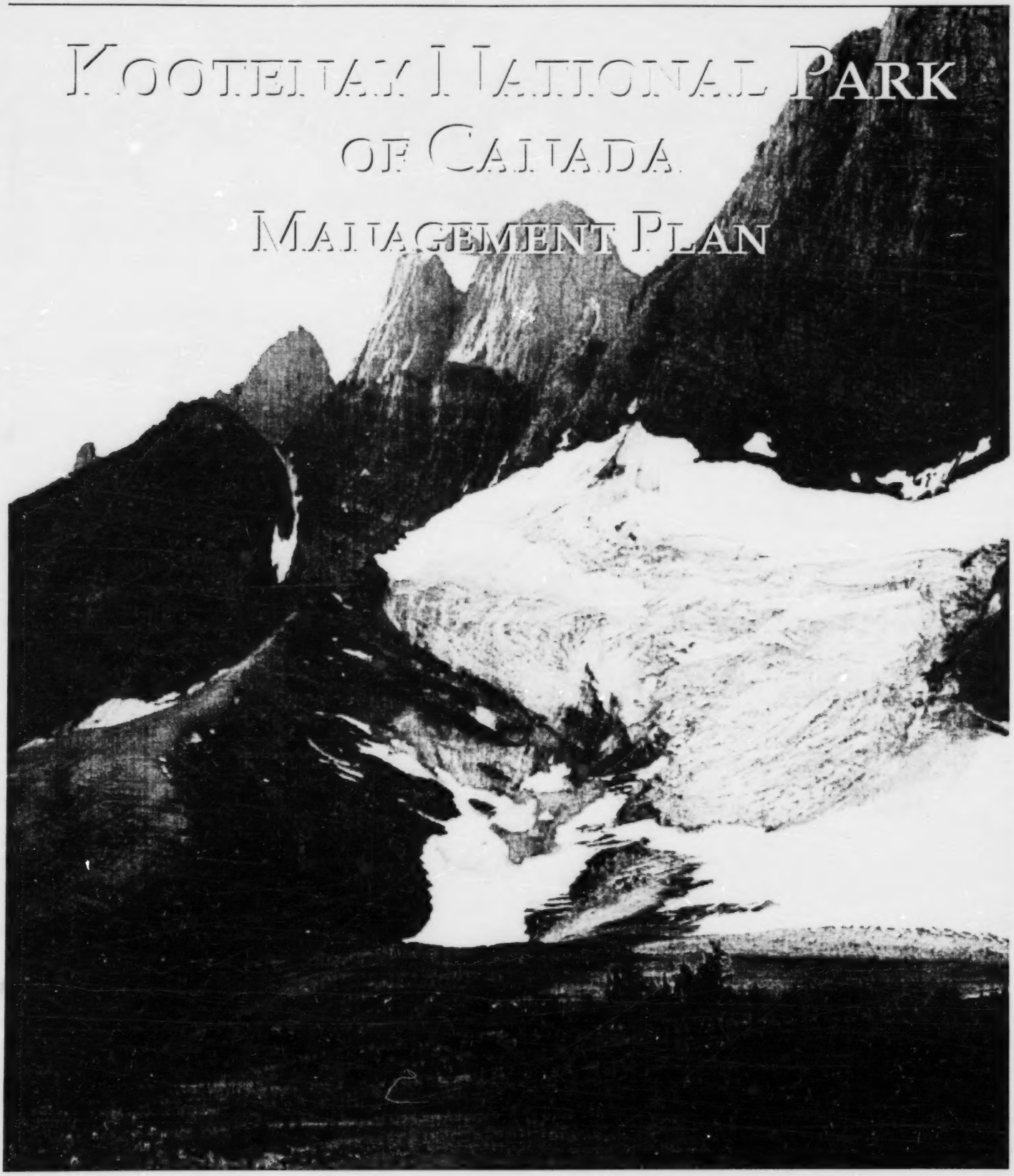
PROUDLY BRINGING YOU CANADA AT ITS BEST

Kootenay National Park of Canada Management Plan



Parks Canada Parcs Canada

Canada

Kootenay National Park of Canada

Management Plan

May 2000

102-00039/

Cover photo: *Tumbling Glacier*

© Minister of Public Works
and Government Services Canada 2000
Catalogue No.: R64-105/26-2000E
ISBN: 0-662-28861-0

Foreword

Protection of the ecological integrity and cultural resources of the Rocky Mountain national parks, for the appreciation and enjoyment of current and future generations, is one of our nation's greatest responsibilities. It is something we owe both to ourselves and to the world, which has bestowed world heritage site status on these parks.

In 1997, I approved the Banff National Park Management Plan. This management plan for Kootenay National Park of Canada builds on the keythemes and principles of the Banff Plan. National parks are, first and foremost, places for nature and will remain so. They must continue to be places for people and for heritage tourism, places to visit, to experience and to learn. These parks are also places for community and for the highest standards of environmental stewardship. Finally, national parks are places where management is open and transparent.

The Rocky Mountain national parks are closely linked from an ecological and visitor-use perspective. Thus, the Kootenay National Park of Canada Management Plan was developed in concert with the new management plans for Jasper, Yoho and Waterton Lakes national parks. The management plans outline the key tools we need to meet the challenges facing these special places: a better understanding of the immediate and long-range ecological pressures; a better way to integrate commercial and tourist activities in this magnificent, finite environment; and a higher level of local and national input in decision making.

The Kootenay National Park of Canada Management Plan was prepared through extensive public consultation. It provides a shared vision to guide the park into the 21st century; setting the groundwork for action over the next 15 years.

This management plan ensures that the protection of the park's ecological integrity and cultural resources is the primary consideration.

The Government of Canada is committed to the protection and presentation of our natural and cultural heritage and, as Minister of Canadian Heritage responsible for Parks Canada, it is my duty to safeguard our national parks. It is in keeping with this mandate that I approve the Kootenay National Park of Canada Management Plan.

Sheila Copps
Minister of Canadian Heritage

Kootenay National Park of Canada Management Plan

This plan has been recommended for approval by:

Tom Lee
Chief Executive Officer
Parks Canada

Bruce Amos
Director General
National Parks

Gaby Fortin
Director General
Western Canada

Darro Stinson
Field Unit Superintendent
Lake Louise, Kootenay and Yoho Field Unit

TABLE OF CONTENTS

A VISION FOR KOOTENAY NATIONAL PARK OF CANADA 1

1.0 INTRODUCTION 3
- 1.1 A Park of Many Places 3
- 1.2 Management Planning in the Mountain Parks 4
- 1.3 First Nations 5
- 1.4 Cornerstones of Success 5

2.0 PLANNING CONTEXT 9
- 2.1 Regional Setting 9
- 2.2 Park Management and Land Use 10
- 2.3 Human Use 10

3.0 A PLACE FOR NATURE 11
- 3.1 Overview 11
- 3.2 Threats to Ecological Integrity 12
- 3.3 A Vision for Ecological Integrity 13
- 3.4 Communicating the Need for Ecological Integrity 13
- 3.5 Shared Regional Ecosystems 14
- 3.6 Biological Diversity 15
- 3.7 Air Quality 16
- 3.8 Geology and Landforms 16
- 3.9 Aquatic Ecosystems 17
- 3.10 Vegetation 18
- 3.11 Wildlife 19
- 3.12 Indicators of Ecological Integrity 21

4.0 A PLACE OF HISTORICAL AND CULTURAL SIGNIFICANCE 25
- 4.1 Overview 25
- 4.2 Strategic Goals 26
- 4.3 Objectives 26
- 4.4 Key Actions 26

5.0 A PLACE FOR PEOPLE 29
- 5.1 Overview 29
- 5.2 Heritage Tourism 30
- 5.3 Visitor Services and Facilities 31
- 5.4 Awareness and Education 32
- 5.5 Frontcountry Visitor Accommodation 34
- 5.6 Effective Human Use Management 34
- 5.7 Landscape Management Units 37
- 5.8 Tokumm 40
- 5.9 Rockwall 40
- 5.10 Hawk 41

TABLE OF CONTENTS — CONTINUED

5.11 Wardle 41
5.12 West Kootenay 42
5.13 Mitchell 42
5.14 Sinclair 43

6.0 TRANSPORTATION & UTILITIES 45
6.1 Overview 45
6.2 Strategic Goals 46
6.3 Objectives 47
6.4 Key Actions 47

7.0 A PLACE FOR OPEN MANAGEMENT 49
7.1 Introduction 49
7.2 Public Involvement 50
7.3 Development Review Process 51
7.4 Appropriate Use 52
7.5 Regional Coordination 54
7.6 Research and Information Management 55

8.0 A PLACE FOR ENVIRONMENTAL STEWARDSHIP 57
8.1 Overview 57
8.2 Strategic Goals 58
8.3 Objectives 58
8.4 Key Actions 58
8.5 Sewage Treatment 59

9.0 PARK ZONING 61
9.1 National Park Zoning System 61
9.2 Zone I - Special Preservation 62
9.3 Zone II - Wilderness 62
9.4 Zone III - Natural Environment 64
9.5 Zone IV - Outdoor Recreation 64
9.6 Zone V - Park Services 64
9.7 Environmentally Sensitive Sites 64

10.0 SUMMARY OF THE ENVIRONMENTAL ASSESSMENT 65
10.1 Background 65
10.2 The Proposal and Its Impact 66
10.3 Cumulative Effects 67
10.4 The Policy 68
10.5 Public Input 68
10.6 Conclusion 68

TABLES AND MAPS

Table 1. Indicators of Ecological Integrity 22

Table 2. Landscape Management Unit Habitat Effectiveness (HE) 38

Table 3. Appropriate Use Criteria 53

Map 1. Management Plan Summary 8

Map 2. Landscape Management Units 39

Map 3. Park Zoning 63

A Vision for Kootenay National Park of Canada

Kootenay National Park of Canada is a symbol of Canadian identity and pride, recognized within Canada and around the world as an ecologically diverse place. It is a place where complex land use and development challenges are managed in ways that allow nature and natural processes to flourish and evolve. It embodies a rich record of natural and cultural heritage that is respected and celebrated by all who know about, live in, and visit this special place. The park is accessible to the public and supports a range of opportunities that are based on national park values and that foster understanding, enjoyment and support. It is managed as a protected area that works in harmony with others beyond its boundaries to sustain ecosystems in the regional landscape. Canadians and international guests appreciate the ecological and cultural importance of the park to the region, the country and the world.

Key Themes

- The park is a living example of the way in which nature is protected while appropriate kinds and levels of human activity are welcomed (see table 3. Appropriate Use Criteria).
- The park contributes to a healthy and sustainable region.
- Natural systems and their component native species are free to function and evolve. The park supports and is supported by the natural systems of the region around it.
- The park is available to all Canadians and international guests who wish to participate in a diverse range of appropriate activities. They treat the park with respect. The quality of the natural environment and services provided is fundamental to the visitor experience.
- Understanding the value of our national parks is a part of being Canadian. Education and awareness about the values of the national park, ethics of stewardship, natural and cultural heritage and services are provided both within and beyond the boundaries of the park.
- A healthy economic climate, based on the heritage values of the park, contributes to national, provincial and local economies. Appropriate businesses evolve and operate along aesthetically pleasing and environmentally responsible lines. Innovative ideas, designs and technology related to education, transportation, waste management, and other infrastructure are emphasized when providing services.
- Federal, provincial and municipal authorities cooperate in protecting and managing the regional ecosystem. To achieve this, they nurture cooperation with businesses, organizations, and open, accountable, and responsible decision-making.
- Principles of precaution and adaptive management are exercised when potentially significant adverse effects on the ecosystem are uncertain.
- Recognizing the finite supply of facilities and services, the park plays an active role through the heritage tourism strategy in influencing marketing and promotion efforts that affect demand on the park.
- Parks Canada anticipates regional pressures and prepares for them well in advance.
- Success in implementing management plan actions is measured against established standards.

Introduction

1.0 INTRODUCTION

1.1 A Park of Many Places

The story of Kootenay National Park of Canada is the story of the Rocky Mountains—their creation, their evolution as a result of natural processes, their colonization by flora and fauna, and finally their protection and use. This is a special place where the protection of mountain ecology and culture is paramount. Its history, geological features, important vegetation, wildlife populations, thermal springs and uncrowded hiking opportunities define the unique heritage character of Kootenay National Park of Canada.

Kootenay's importance extends well beyond the park boundary. The park is part of a network of protected areas in the Central Rockies Ecosystem. Along with its mountain park neighbours and three adjacent provincial parks, it makes up UNESCO's Rocky Mountain World Heritage Site—20,000 km^2 of some of the most spectacular and ecologically significant areas in the Canadian Rocky Mountains.

This management plan recognizes that Kootenay National Park of Canada is not one place, but many places. It is, above all, a place for nature—where the intricate relationships that make up the web of life continue to evolve as they have for thousands of years. It is a place where people can discover the wonder of the natural environment and appreciate, first hand, the richness of their heritage. It is a place that recognizes and celebrates the past. It is a place where people recognize their role in the ecosystem and their responsibility to act accordingly. And finally, it is a place for the future. The *National Parks Act* dedicates national parks *"to the people of Canada for their benefit, education and enjoyment…to be maintained and made use of so as to leave them unimpaired for future generations"*. This management plan is a key tool for shaping that future.

1.2 Management Planning in the Mountain Parks

The *National Parks Act* requires each of Canada's 39 national parks to prepare a management plan, and, in consultation with Canadians, to update the plan every five years. In 1988, the federal minister responsible for Parks Canada tabled the first management plans for Yoho, Banff, Kootenay, and Jasper National Parks of Canada in Parliament. These plans were the result of nation-wide public consultation and in-depth analysis of the social, economic and environmental conditions facing each park. Since 1988, these four parks have addressed the plans' priorities and many changes have taken place.

A review of the plans began in 1993, but was postponed until 1996 when the Banff-Bow Valley Task Force submitted more than 400 recommendations concerning protection of the Bow Valley corridor in Banff. After careful assessment of these recommendations, Parks Canada prepared a new management plan for Banff National Park of Canada. The revised management plans for Yoho, Kootenay, Jasper, and Waterton Lakes incorporate key principles and policy direction from the Banff plan.

Other important changes have occurred since the completion of the parks' first management plan. New issues have emerged. Governments have set new policies and drafted new legislation. Researchers have improved our understanding of the critical importance of ecosystem-based management and biodiversity. Tourism has increased rapidly, along with an interest in destinations that offer opportunities to learn about nature and history.

The following are examples of new legislation, policies, plans and studies that Parks Canada has considered in drafting the management plan.

- amendments to the *National Parks Act* (1988)
- the *Strategic Framework to Sustain the Integrity of Ecosystems* (Parks Canada 1992)
- the Biodiversity Convention (1992)
- the British Columbia Treaty Process (1994)
- *Parks Canada: Guiding Principles and Operational Policies* (1994)
- the *Canadian Environmental Assessment Act* (1995)
- the *Banff National Park Management Plan* (1997)

Kootenay National Park of Canada Management Plan

Kootenay's revised management plan will guide the overall direction of the park for the next 10 to 15 years. The objectives of the plan are to:

- set out a vision for the future;
- preserve and strengthen the ecological integrity of the park in a way that integrates ecological, social, and economic values;
- promote high quality visitor experiences based on the parks ecological and cultural heritage;
- establish clear limits to development associated with appropriate activities;
- support Parks Canada's initiative to renew heritage presentation; and
- involve others in protecting the shared ecosystem.

The public played a key role in shaping the revised management plan. Open houses in several communities attracted hundreds of participants. Parks Canada also distributed more than 1,500 management plan concepts to the public for comment. On-going consultations with stakeholders, including the government of British Columbia, have also provided valuable insight.

1.3 First Nations

Kootenay is part of an area identified by the Ktunaxa and Shuswap Nations as their traditional territories. The Ktunaxa Nation, British Columbia, and the federal government are negotiating a treaty that includes "Parks and Protected Areas" and "cultural resources" as a subject for negotiation. This management plan contains important direction concerning ongoing collaboration with First Nations to protect and present Aboriginal heritage.

1.4 Cornerstones of Success

Parks Canada will have realized the vision for Kootenay National Park of Canada when the following strategic goals become a reality. Each chapter in this management plan describes objectives and key actions to make that happen. Map 1 in section 1 summarizes the plan's key actions.

A Place for Nature

Canadians understand the challenges involved in maintaining the ecological integrity of Kootenay National Park of Canada.

Biological diversity exists at a variety of scales—genetic, species, community, landscape.

Air quality is of the highest possible standard.

Natural processes, including erosion and deposition, shape the landscape and its ecosystems.

The natural structure and function of aquatic and terrestrial ecosystems are maintained.

Natural processes determine the long-term composition and structure of vegetation.

The regional ecosystem supports viable populations of native wildlife.

A Place for Historical and Cultural Heritage

Cultural resources are protected and the associated themes presented.

Parks Canada and Aboriginal people collaborate on the protection and presentation of Aboriginal heritage in Kootenay National Park of Canada.

A Place for People

Canadians and their international guests appreciate and understand the nature and history of Kootenay National Park of Canada and the role the park plays in Canada's national park system and the Canadian Rocky Mountain Parks World Heritage Site.

Appropriate facilities and services allow visitors with varying interests to enjoy the park.

Information is available to help visitors make informed choices about appropriate park use.

Visitors experience the park without impairing its ecological integrity and important cultural resources.

Ecological and social objectives are met by assessing and managing human use in each landscape management unit.

Integrated ecological and visitor experience objectives are achieved for each landscape management unit.

Canadians and their international guests enjoy high quality, authentic learning and travel experiences that are based on national park values and that bolster a sense of Canadian identity.

A well-informed tourism industry respects the ecological and social values of Kootenay National Park of Canada.

Transportation and Utilities

Park roads are managed in a way that supports Parks Canada's commitment to ecological integrity and enables visitors to experience the park.

Utilities have minimal impact on the park's ecological integrity and the visitor experience.

The impact of aircraft on ecological integrity and the visitor experience is kept to a minimum.

Open Management

Key policy, land-use and planning decisions are timely, fair and consistent, and are arrived at in an open and participatory manner.

Ecological, social and economic systems in the park and greater ecosystems benefit from integrated management.

Research and information, shared among agencies and individuals in the East Kootenays and Central Rockies Ecosystems, support sound decision making.

The Development Review Process ensures public input and the consistent application of guidelines to all development, including major renovations, in Kootenay National Park of Canada.

Appropriate use is evaluated using clear criteria that respect the mandate as described in the National Parks Act and Parks Canada's policy framework.

Environmental Stewardship

Environmental stewardship supports ecological integrity and heritage tourism, and sets a standard of excellence.

Parks Canada demonstrates sound environmental practices in all its activities, services and products.

Environmental stewardship is fundamental to the operation of all businesses and institutions.

Visitors and residents contribute to the principles of environmental stewardship and sustainability.

In the long term, effluent targets match, as closely as possible, the natural composition of receiving waterbodies.

Sewage from facilities that are not connected to a treatment plant have minimal environmental impact.

Ecosystem-Based Management

One of the biggest questions for national parks is how to maintain a healthy environment and protect important cultural resources while at the same time supporting quality visitor experiences and contributing to social and economic needs. To address this challenge, Parks Canada has adopted an approach system known as "ecosystem-based management".

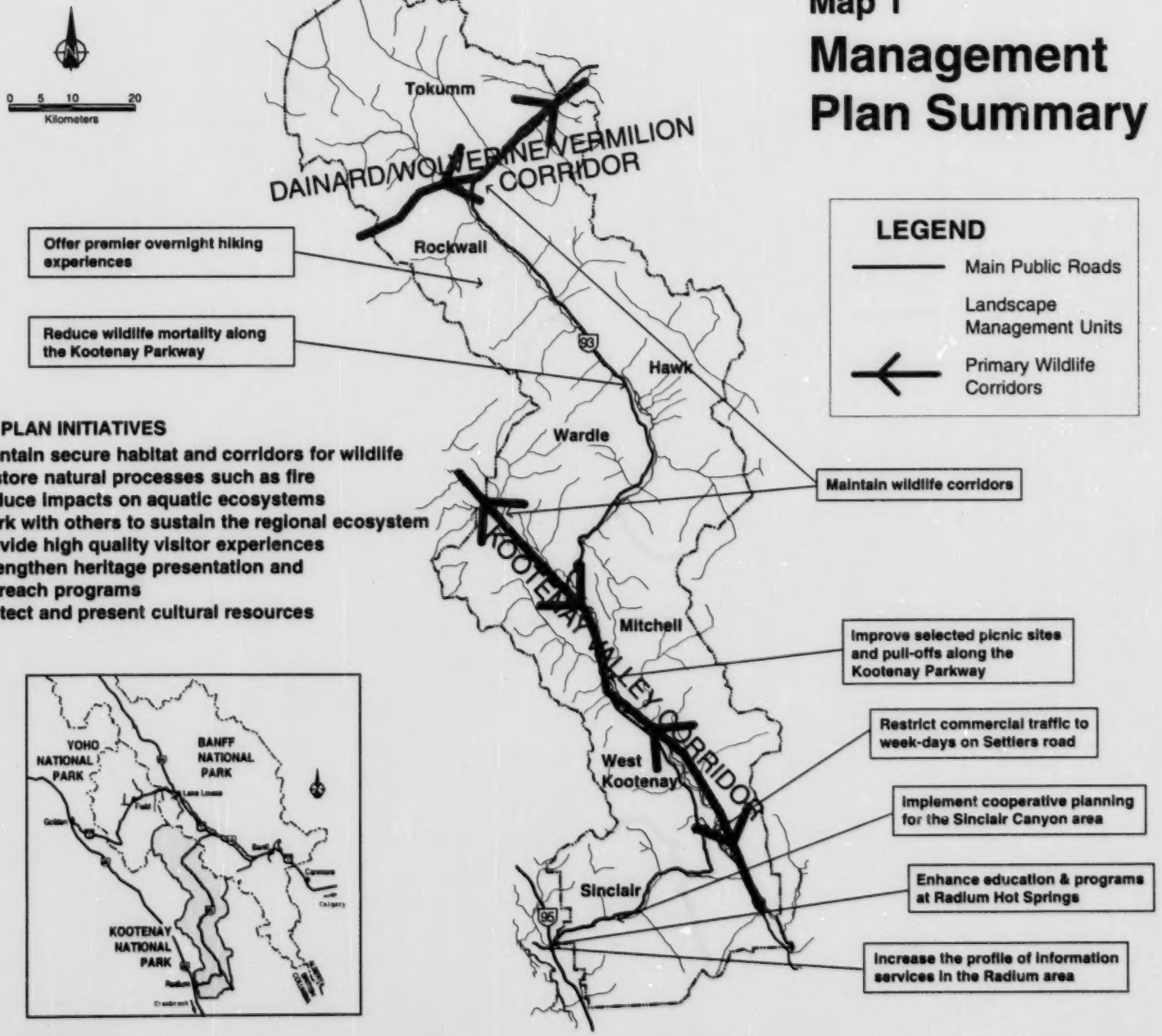
Ecosystem-based management is a holistic approach that involves working with others to achieve common goals. Productive, positive, long term relationships are the key to its success. Multi-disciplinary in nature, it seeks to integrate biological, physical and social information. The goal—a healthy park, environmentally, socially and economically, within a broader regional landscape.

The following key components are the foundation for ecosystem-based management.

- *Ecosystems extend beyond park boundaries. Activities on neighbouring lands affect the park's wildlife, air, water, and vegetation. By the same token, park activities affect our neighbours. Integrated management is essential.*
- *People are a fundamental part of the ecosystem. Addressing people's social and economic needs makes it possible for them to contribute to a healthy environment. Inside the park, these needs must be considered in the context of protecting ecological and cultural heritage. Outside the park, Parks Canada will encourage activities that incorporate heritage values.*
- *Understanding the relationship between people and the environment is the foundation of good decisions. In pursuit of this understanding, we can derive inspiration from the human-land relationship of Canada's Aboriginal Peoples.*
- *Visitor use respects the importance of protecting ecological and cultural resources. Parks Canada must carefully manage visitor use and development, setting limits where necessary.*
- *Decisions are based on sound information (ecological, cultural and social). Benchmarks and parameters help us understand the park's health.*
- *Consulting with visitors, residents, businesses and other government agencies is a key component in maintaining ecological integrity, and the protection of our cultural heritage, and offering opportunities to enjoy quality experiences.*
- *Educational programs for visitors, residents, and businesses, inside and outside the park, create awareness of ecosystems, the challenges involved in protecting them, and the role people can play.*
- *Natural processes and, where appropriate, technology are important in maintaining and restoring ecosystems.*

The management plan is founded on these ecosystem management components. While individual chapters address different issues, the actions in each are linked. Collectively they represent an integrated approach that Parks Canada believes will ensure Kootenay continues as a living example of national park values.

Map 1
Management Plan Summary



KEY PLAN INITIATIVES

- Maintain secure habitat and corridors for wildlife
- Restore natural processes such as fire
- Reduce impacts on aquatic ecosystems
- Work with others to sustain the regional ecosystem
- Provide high quality visitor experiences
- Strengthen heritage presentation and outreach programs
- Protect and present cultural resources

Planning Context

2.0 PLANNING CONTEXT

2.1 Regional Setting

Kootenay National Park of Canada, an area of 1,406 km^2, stretches in a north-south direction along the western portion of the Continental Divide. The park shares boundaries with Banff and Yoho National Parks and Mt. Assiniboine Provincial Park. Highway 93 (the Kootenay Parkway) follows the valleys of the Vermilion and Kootenay rivers through the core of the park. This highway played an important role in the formation of the park. In 1920, the province of British Columbia agreed to exchange eight kilometres of land on either side of the highway for federal funds to complete construction. This land became Canada's tenth national park.

Because of its size, its narrow shape, and the fact that it was not originally set aside to protect ecosystems, Kootenay must rely on the cooperation of other agencies in the region to achieve its mandate of maintaining ecological integrity. Part of the Central Rockies Ecosystem, Kootenay is closely linked with neighbouring lands in British Columbia. Major valleys, such as the Kootenay, and the Columbia are particularly important as habitat and wildlife corridors. A variety of federal, provincial, and municipal agencies, often with very different mandates, oversee land use outside the park.

2.2 Park Management and Land Use

The evolution of park management has manifested itself in several areas. In the formative years of the park, the emphasis was on tourism. Concern about protection was limited.

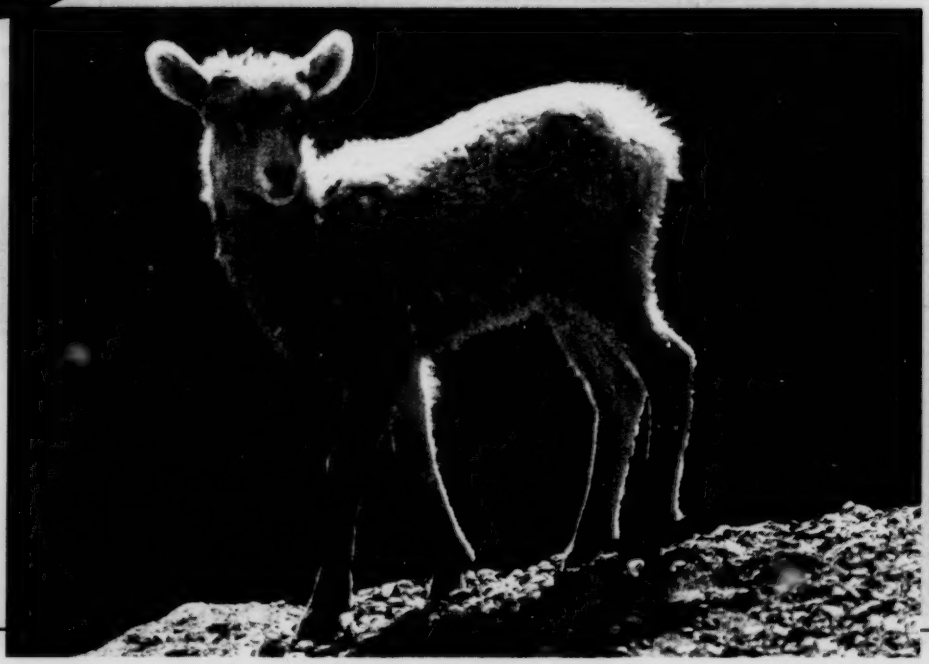
Many activities sanctioned by former policies are no longer considered appropriate in national parks. In fact, many of the park's current efforts are aimed at restoring systems radically altered as a result of former policies, particularly policies on hunting and fire suppression. Although hunting was prohibited from the time of the park's establishment, it was not until much later that predator control programs ended. Fire suppression in Kootenay National Park of Canada has interfered with fire's critical link in the natural evolution of the environment, favouring the growth of conifer forests to the detriment of other habitats such as grassland and trembling aspen stands. Today park managers have a better understanding of the importance of natural processes such as fire to ecological integrity. Protection is based on a much broader ecological view and with increasing human use demands new approaches.

2.3 Human Use

The number of visitors to Kootenay National Park of Canada has grown steadily over the last two decades, a trend that promises to continue. More residents and tourism development in neighbouring communities, growth in regional and international tourism, and ease of access have all contributed to this increase.

Kootenay is a main destination for visitors to southeastern British Columbia and a gateway to the four mountain parks for travelers from the United States. The park is an important economic catalyst in the East Kootenays, particularly for the community of Radium. The Radium Hot Springs pools are a popular park attraction.

A Place for Nature



3.0 A PLACE FOR NATURE

3.1 Overview

"Maintenance of ecological integrity through the protection of natural resources shall be the first priority when considering park zoning and visitor use in a management plan".

National Parks Act, 1988

Parks Canada's *Guiding Principles and Operational Policies* defines ecological integrity as *"a condition where the structure and function of an ecosystem are unimpaired by stresses induced by human activity and are likely to persist"*. In other words, a national park has ecological integrity if all the plants and animals that should be in the park still thrive there, and people use the park and its surroundings in ways that respect the needs of those plants and animals and allow fires,

floods, weather and other natural processes to create natural habitat.

Ecological integrity is measured in terms of:

- ecosystem health, including the ability to evolve, develop, and adapt to change;
- biological diversity, including the ecological and evolutionary processes that keep species functioning;
- the ability of plant and animal communities to resist or adapt to stresses and change;
- the ability of plants and animals to sustain healthy populations; and
- the integration of people into the environment in ways that sustain both human quality of life and ecological diversity.

3.2 Threats to Ecological Integrity

Development, park management actions, and a variety of other activities, inside and outside the park, threaten ecological integrity in Kootenay National Park of Canada.

Park Management Practices

Most park management practices influence the well-being of park ecosystems. Water and waste management, flood and fire protection, and vegetation management modify natural processes, putting stress on ecosystems.

Vegetation Change

In general, Kootenay National Park of Canada's vegetation is becoming less diverse and more artificial, largely because of fire suppression and the invasion of non-native species. Fewer, smaller fires have meant a gradual aging of forests, significant accumulations of forest fuels, and a loss of important wildlife habitat.

Exotic Organisms

Non-native species have become established due to deliberate introductions or accidental releases. These species have a competitive advantage because they arrived in this area without a full complement of parasites, diseases, predators and other factors that control populations of native species. Some exotic species hybridize with native species. Others are effective predators or carry diseases to which native species lack natural defences. Some compete with native species and take over.

Habitat fragmentation and wildlife displacement in the greater park ecosystem

Resource harvesting in the region surrounding the park has reduced habitat effectiveness for some species of wildlife. Industrial access increases activity in once-remote wildlife ranges and leads to greater recreational use of adjacent areas of the park. Traffic on industrial roads and sites also contributes to the spread of exotic weeds by disturbing the soil and spreading weed seeds. Animals such as grizzly bears and elk suffer habitat loss or displacement when roads and development proliferate.

Roads through the park, including the Kootenay Parkway, fragment the landscape and, in some cases, block wildlife movement.

Some of the park's recreational infrastructure—picnic areas, parking lots, hiking trails, campgrounds, scenic viewpoints —are located in important wildlife habitat or areas subject to flooding and other natural processes. This infrastructure gives park visitors unparalleled opportunities to experience and learn about nature. The challenge is to ensure that development does not fragment and degrade the natural systems people come here to visit.

Threats to wide-ranging carnivores (e.g., grizzly bear, wolf, lynx)

Large carnivores are highly valued by most visitors and local residents. The continuing existence of these species indicates functioning landscapes, productive habitats, and human understanding and tolerance. These animals need large home ranges and more habitat diversity than the park can provide. Many animals range across jurisdictional boundaries into areas where they are not protected by park acts and regulations. The World Wildlife Fund's Carnivore Conservation Strategy and the Yellowstone-to-Yukon Conservation Initiative place a high priority on the conservation of large carnivores in the region.

Wildlife Habituation

Animals respond to changes in their environment. As human use of the park and the surrounding landscape intensifies, and as we modify wildlife habitats and displace predators, some species of animals adapt to the changes in ways that generate conflict. Conflicts between wildlife and humans, and the associated management actions, often result in wildlife mortalities. Sensitive wildlife avoid areas where there are many people, limiting the amount of habitat available to them.

Degradation of Aquatic Ecosystems

Reservoirs, flood control, road construction, and the introduction of non-native fish have altered aquatic resources and the natural flow of many streams in the park. The health of some native fish, aquatic invertebrates, and riparian habitats has declined as a result of these changes.

The underlying cause of most threats is related to the impacts of human use. This reinforces the need to manage human use within the park and to work with others beyond park boundaries to maintain the health of park ecosystems.

The park is addressing many of these threats. Measures include improved garbage management, an end to fish stocking, closing backcountry roads, temporary and permanent area closures to protect sensitive wildlife species, introduction of prescribed fires, progress on control of non-native plants, and interjurisdictional cooperation in environmental management. These undertakings will provide a strong base for future restoration, maintenance and management.

3.3 A Vision for Ecological Integrity

Kootenay National Park of Canada protects and maintains the native biological diversity of this portion of the Rocky Mountains. The park is a living example of the way in which ecological values are protected in a place where appropriate kinds and levels of human activity are welcome. The park's ecosystems and their component native species and natural processes are free to function and evolve. The park supports and is supported by the natural ecosystems of the region around it.

To maintain the park's ecological integrity in a changing world, Parks Canada will focus on:

- promoting and cooperating in scientific studies that add to our knowledge of ecological integrity in the park and surrounding landscape and investigating the ways in which human activities influence the ecosystem;
- managing or reducing stressors that reduce biological diversity or impair ecosystem health;
- applying ecosystem-based management principles in decision making;
- restoring ecological processes, with priority given to those actions which have the potential for significant ecological benefit;
- collaborating with other land managers, neighbouring landowners and interested public organizations to promote ecosystem sustainability and an informed human community in the Central Rockies Ecosystem; and
- increasing understanding and appreciation of ecosystem processes, landscape history and conservation issues, and opportunities for stewardship among the community of people who visit, occupy or use Kootenay National Park of Canada and surrounding landscapes.

3.4 Communicating the Need for Ecological Integrity

Ecological integrity depends on informed choices by people whose behaviour and decisions influence virtually every ecosystem on Earth. For this reason, Parks Canada has made communication an integral component of every strategic goal in this management plan. This section highlights specific actions to help people understand ecological integrity and its implications. Other chapters, especially *A Place for People*, describe additional communication initiatives.

3.4.1 Strategic Goal

Canadians understand the challenges involved in maintaining the ecological integrity of Kootenay National Park of Canada.

3.4.2 Objectives

To reach broader audiences with key ecological integrity messages by sharing this responsibility with others.

To ensure Canadians value the park as part of an integrated network of protected areas within a regional ecosystem.

3.4.3 Key Actions

1. Develop a communications program about ecological integrity that:
   - targets key audiences;
   - involves park staff, researchers, residents, and park businesses;
   - presents information on key ecosystem issues; and
   - encourages shared responsibility for stewardship.
2. Present the following messages:
   - the complexity and dynamic nature of ecosystems;
   - Kootenay's role in sustaining the environmental, social and economic health of the East Kootenays and Central Rockies Ecosystems and as an ecological benchmark for these ecosystems; and
   - the importance of ecosystem-based management.
3. Emphasize opportunities to see and learn about significant components of the park's ecosystem.
4. Expand the park's web site to include information on research and ecological integrity.
5. Prepare issue specific communication strategies related to wildlife mortality, regional wildlife corridors, prescribed fires and environmental stewardship.

3.5 Shared Regional Ecosystems

Kootenay National Park of Canada is inseparable from the lands that surround it. Because of its size, configuration and the fact that it was not originally set aside to protect ecosystems, regional cooperation is critical if Kootenay is to achieve its objectives for ecological integrity and biodiversity. Given this context, the park's targets for ecological integrity must be realistic. Our goal is to sustain existing levels of integrity and to work towards improvements where possible.

3.5.1 Strategic Goal

Integrated planning and management in the East Kootenays and Central Rockies Ecosystems.

3.5.2 Objectives

To build relationships and share information among the agencies, individuals and interest groups in the regional ecosystem.

To work towards common goals.

3.5.3 Key Actions

See also Section 7.5—Regional Coordination

1. Work with the Central Rockies Ecosystem Interagency Liaison Group (CREILG) and the British Columbia Interagency Management Committee (IAMC)to determine and work cooperatively to implement management priorities on a regional ecosystem basis.
2. Work with land managers in British Columbia to improve wildlife connectivity between the park and the Cross River, neighbouring lands, including the Kootenay and Columbia valleys, the Simpson River and the Beaverfoot-Dainard Corridor.
3. Work with the Rocky Mountain Grizzly Bear Planning Committee to conserve and manage grizzly bears at inter-regional and international scales.
4. Increase the park's involvement in local and regional land use decisions in the East Kootenay region (e.g., implementation of the East Kootenay Boundary Land Use Plan and planning for the Moose-Dainard Special Management Area).

5. Participate with the Ministry of Forests in timber supply reviews and forest management planning.
6. Pursue joint research that addresses regional ecosystem issues (e.g. aquatic resources of the Kootenay River and bighorn sheep monitoring with BC Environment and the Columbia Basin Fish and Wildlife Program).
7. Work with other land management agencies to reduce the number of roads adjacent to park wilderness areas and in key areas throughout regional ecosystems, particularly in the Beaverfoot Valley and the Kootenay Valley north and south of the park and the Columbia Valley adjacent to the park.
8. Work with provincial and federal agencies to monitor the impact of industrial activity, especially timber cutting, on hydrology and water quality in the Kootenay River system.
9. Support GIS and research initiatives that focus on landscape change.

3.6 Biological Diversity

A park's biodiversity is a key element of ecological integrity. The best way to protect ecological integrity is by maintaining natural biodiversity. There are several types of biological diversity including: genetic, species, community and landscape. Each requires special attention to ensure its continuing viability.

- landscape diversity includes all ecosystems in an area, plant and animal communities, and the physical habitat
- community diversity encompasses all the species living together in a particular habitat
- species diversity refers to the variety of plants and animals in an area
- genetic diversity refers to the variation in genetic make-up among individuals of the same species

Biodiversity is linked to ecological processes, such as fire, flood, avalanches, predation, pollination, seed dispersal and grazing. These natural processes, and the physical environment that produces and supports the diversity of life, must also be maintained.

3.6.1 Strategic Goal

Biological diversity exists at a variety of scales—genetic, species, community, and landscape.

3.6.2 Objectives

To maintain biological diversity at broad landscape and community scales, including ecological processes.

To maintain and restore viable populations of native species, including the genetic diversity within species.

To protect, maintain or restore rare, vulnerable, threatened or endangered genetic resources, species and biotic communities.

To ensure that natural disturbances (e.g., wind, flood, avalanches, grazing) and their effects function unhindered.

3.6.3 Key Actions

1. Monitor the status of vulnerable, rare, threatened and endangered species in the park.
2. With other groups and government agencies, to develop recovery and management programs for vulnerable, rare, threatened and endangered species.
3. Prepare status reports on species for consideration under species at risk legislation.
4. Ensure that monitoring, research and management programs address all aspects of biological diversity including aquatic resources, carnivores, ungulates, small mammals, birds, reptiles, amphibians and invertebrates.
5. Maintain the ecological structure and function of the montane, subalpine, and alpine ecoregions, with particular emphasis on areas affected by development and use.

3.7 Air Quality

Nearby industrial activity, traffic on the Kootenay Parkway, and smoke from forest fires are the main threats to air quality. In addition to air quality concerns, inappropriate lighting is the subject of increasing attention as lights interfere with opportunities to view the night sky.

3.7.1 Strategic Goal

Air quality is of the highest possible standard.

3.7.2 Objective

To work with others to ensure that human sources of pollution do not impair visibility, the ability of the ecosystem to support a full range of naturally occurring species, or human safety.

To implement an environmental management system (see Section 8.0)

3.7.3 Key Actions

1. Monitor air quality.
2. Address issues related to temperature inversions.
3. With other agencies responsible for atmospheric sciences, monitor long-term changes in air quality and visibility, using national parks as benchmarks.
4. Reduce vehicle and other fossil fuel emissions in the park.
5. Conduct prescribed fires under conditions that limit, where possible, the volume, intensity and duration of smoke in populated areas.
6. Through education and outreach, promote informed action to protect ecosystems from decline caused by global change.
7. Encourage the use of lighting that is functional and does not detract from the natural environment.

3.8 Geology and Landforms

Kootenay National Park of Canada contains outcrops of Burgess Shale fossils along the Cathedral Escarpment. Although not as well known as the Burgess Shale sites in Yoho, they do require protection (see Section 9: Park Zoning). The Ice River Igneous Complex is also a significant geological resource.

Road construction poses the greatest threat to landforms and physical processes in Kootenay National Park of Canada. The park contains a number of disturbed sites— e.g., borrow pits.

3.8.1 Strategic Goal

Geological processes, including erosion and deposition, shape the landscape and its ecosystems.

3.8.2 Objectives

To protect special geological and palaeontological features.

To protect and restore park landforms and associated physical processes from the impacts of development and use.

To consider the impact of management decisions on landforms outside the park.

3.8.3 Key Actions

1. Provide special protection for the Burgess Shale fossil sites and the Ice River Igneous Complex and caves.
2. With other interested parties, assess the understanding of the park's geological resources; determine research priorities.
3. Prepare a long-term plan for gravel extraction:
   - keep the need for aggregate and abrasives to a minimum;
   - avoid disturbing natural features and rare or sensitive landforms;
   - rehabilitate disturbed sites; and
   - whenever possible, obtain construction material from suitable sources outside the park.
4. Rehabilitate disturbed sites.

3.9 Aquatic Ecosystems

Past management practices have led to a noticeable decline in the ecological integrity of aquatic ecosystems. Many factors have contributed to this situation including the introduction of non-native fish species, the release of nutrients and other chemicals into the water, pollution from highways , construction, and flood control measures. In addition, downstream damming and resource extraction activities may have affected aquatic systems in the park.

3.9.1 Strategic Goal

The natural structure and function of aquatic ecosystems are maintained.

3.9.2 Objectives

To maintain water quality, water levels and flow regimes within the natural range of variability.

To manage human use so that visitors can enjoy and learn about the park in a way that protects the integrity of aquatic ecosystems.

3.9.3 Key Actions

Inventory and monitoring

1. Inventory aquatic resources, and assemble baseline data.
2. Monitor native and non-native fish species, invertebrates, algae, amphibians and waterfowl.

Restoration of Aquatic Ecosystems

3. Identify aquatic habitats for restoration.
4. Identify waterbodies that can be used as benchmarks—prohibit angling in these waterbodies, protect or restore habitat, and promote long-term research.
5. Ensure any necessary modification of stream channels avoids siltation, loss of habitat, and changes to natural flow.
6. Minimize the effects of transportation corridors and other structures (culverts, stream channelization, bridge abutments) on seasonal changes in water flow and water levels.
7. Work with surrounding land managers to address regional aquatic issues (e.g., develop a multi-agency plan for protection of the Upper Kootenay Valley).
8. Restore native fish species and invertebrate populations, on a pilot basis.
9. Minimize or reduce the effects of backcountry sanitation facilities on water quality.

Angling

Recreational fishing will continue. Management will focus on ensuring viable native fish populations. This will involve a more comprehensive approach to aquatic ecosystem management.

10. Implement regulations to protect native fish.
11. Restructure open seasons for angling to protect native fish during spawning.
12. Where both native and non-native species occur in the same waterbody, consider catch and release regulations to protect native species.

Communication

13. Offer park visitors opportunities to learn about aquatic ecosystems.
14. Ensure visitors understand how they can reduce their impact on the park's aquatic resources.

3.10 Vegetation

Kootenay's vegetation has evolved over thousands of years under the influence of lightning and climatic, geological, and human factors. Vegetation, while important on its own, also provides food, shelter and cover for wildlife.

As with all components of the ecosystem, vegetation is dynamic. The park's vegetation responds to short term natural disturbances such as fire, floods, grazing, avalanches, windstorms, insect infestations and disease. Aboriginal people influenced the park's vegetation in some areas through their use of fire; current vegetation management recognizes this practice.

In Kootenay National Park of Canada, interference with natural processes has resulted in the following:

- a steady decline in the area occupied by critical ecosystem components such as open forest, montane meadows, and young forest stands;
- the loss of biodiversity;
- differences between the age and type of vegetation in the park and on adjacent land;
- increased risk of uncontrollable wildfire as a result of fuel build-up;
- invasions by non-native species such as leafy spurge and pine blister rust; and
- introduction of non-native weed species in many backcountry locations by horses and their feed.

Kootenay National Park of Canada has drafted a fire management plan that calls for the suppression of all fires caused by people or lightning in specific areas. The plan also outlines a program of prescribed burns.

3.10.1 Strategic Goal

Natural processes maintain the long-term composition and structure of vegetation communities.

3.10.2 Objectives

To maintain and restore the role of fire and other ecological processes, except where limited by safety considerations and the protection of park facilities and neighbouring land.

To control or eliminate non-native species that threaten the integrity of native plant species and communities.

3.10.3 Key Actions

Inventory

1. Assess native biodiversity.
2. Determine the current status of rare plant species.

Fire Management

3. Consider the objectives of adjacent land managers when planning prescribed fires.
4. With adjacent land managers and the province of British Columbia, develop a strategy to reduce the probability of wildfires spreading beyond the park boundary.
5. Determine, through scientific research and traditional knowledge, the effect of First Nations' traditional activities on vegetation and biodiversity.
6. Restore, through prescribed fires and fires caused by lightning, 50% of the estimated long term fire cycle (e.g., approximately 3.5 square kilometres annually).
7. Promote a greater understanding of the ecological role of fire.

Non-Native Species

8. Maintain an inventory of non-native plant species.
9. Encourage the use of native species for landscaping both park and private facilities.
10. Increase public support, awareness, and involvement in the control of non-native plants.
11. Control or eliminate non-native species that threaten the integrity of native plants and communities.

Ecosystem Function

12. Provide adequate habitat for native species by maintaining the natural structure and composition of vegetation.
13. Monitor forest insect populations and disease.

3.11 Wildlife

There are nearly 300 species of birds, mammals, reptiles and amphibians in Kootenay National Park of Canada. Many invertebrates are also found, although very little has been done to determine their status. Ungulates, including mule deer, white-tailed deer, elk, and bighorn sheep, are limited by lack of secure montane habitat. Although much of the park consists of rock and ice, large patches of high quality habitat at lower elevations support carnivores, ungulates, and other species. Human caused mortality, disturbance, and habitat fragmentation in the ecosystem influence how successfully large carnivores can use this habitat.

Kootenay has a large variety of rare species. Preliminary research indicates that Kootenay contains seven species designated "at risk" by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). Many animals are on the British Columbia provincial tracking lists for species at risk. Monitoring of selected species is crucial to determine their status and trends, and to focus management efforts in priority areas.

More human use, coupled with changes in the regional ecosystem, have resulted in:

- the displacement of wary species (e.g., grizzly bears);
- wildlife mortality as a result of highway accidents or because animals have become habituated;
- habitat loss caused by resource extraction, development, and altered vegetation patterns;
- loss or disruption of wildlife movement corridors; and
- disturbance of wildlife during critical periods (e.g. mating or nesting, raising young, or when on winter range).

3.11.1 Strategic Goal

Populations of native wildlife are viable within the regional ecosystem.

3.11.2 Objectives

To maintain viable populations of grizzly bear, wolf, wolverine and other rare or sensitive wildlife vulnerable to displacement by people.

To maintain and, where feasible, restore habitat quality and connectivity for wildlife in the park and on surrounding lands.

To restore long-term patterns of behaviour, distribution and abundance of ungulates.

To reduce human-caused mortality that threatens the viability of wildlife populations in the park and regional ecosystem.

3.11.3 Key Actions

Wildlife Monitoring

1. Monitor populations and habitats of selected indicators or sensitive wildlife species.
2. With provincial government agencies, monitor shared wildlife populations and determine population trends.
3. Monitor birds in habitats that have been altered, or are at risk of being altered, by human activities (e.g., grasslands, wetlands, aspen forests).
4. Study the effects of human activity and habitat fragmentation on small mammals, reptiles, and invertebrates.
5. Study the historical status and distribution of wildlife in regional ecosystems.
6. Identify conservation strategies for species identified in the proposed *Species At Risk Legislation*.

Habitat Security

7. Identify security area targets for grizzly bears within one year.
8. Investigate the habitat requirements of, and cumulative effects on, species most sensitive to disturbance in winter.
9. Determine habitat requirements for sensitive wildlife during mating/rutting/calving/nesting/denning periods; ensure that human activity does not conflict with these requirements; and ensure that human use in late winter does not affect these areas.
10. Identify prime denning habitats for wolverines.
11. Encourage surrounding provincial jurisdictions to restore secure habitat for viable populations of wary carnivore species.

Wildlife Mortality

12. Work towards reducing the death rate of large mammals as a result of highway accidents by at least 25% over the next five years. Key areas include:
    - Sinclair Canyon (west gate to Sinclair Pass)—bighorn: year round;
    - Kootenay Parkway (Kootenay Crossing to Sinclair Pass)—black bears: spring green-up; and
    - Kootenay River (picnic area to Hector Gorge)—elk, bear, wolf.
13. Continue interagency discussions to reduce mortality on other highways in the greater ecosystem.
14. Ensure that the number of grizzly bears killed as a result of human activity each year is less than 1% of the population in the park.
15. Update and implement the wildlife-human conflict management plan.

Habitat Connectivity

16. Restore important movement corridors at major pinch points, (e.g., Sinclair Canyon, Mount Wardle, Vermilion Crossing, Vermilion Pass, Wolverine Pass).
17. Participate in large-scale planning and research initiatives such as the Yellowstone-to-Yukon initiative.
18. Work with the provinces of British Columbia and Alberta to secure movement of wolves through the Columbia Valley and Crowsnest Pass.
19. Develop performance measures to evaluate success in protecting carnivores.

Maintain, Protect and Restore Wildlife Habitat

20. Maintain conditions to support a wolf pack in the park.
21. Identify and enhance protection of sensitive sites such as wetlands, winter range, endangered species habitats, and other special habitats.
22. With other jurisdictions, encourage the protection of rare ecosystems in the Columbia Valley.

3.12 Indicators of Ecological Integrity

To measure the effectiveness of the actions outlined in this chapter, Parks Canada will use a suite of indicators. Indicators represent components of the ecosystem that are either sensitive to change, or that reflect overall ecosystem health. Indicators must also represent different scales and time frames—from species to landscape and from the short to long term. By comparing the health of an indicator to a target or desired level, researchers can assess progress in achieving the park's goals for ecological integrity.

This approach is directly linked to the *State of the Parks Report*, which identifies three areas for assessing ecological integrity—biodiversity, ecosystem function, and stressors. The indicators chosen will allow Kootenay National Park of Canada to assess its progress in these areas.

Indicators and targets, with the associated research and monitoring, will also help Kootenay National Park of Canada fulfill its obligations to assess the cumulative effects of human use required by the *Canadian Environmental Assessment Act*.

Many of the actions in this chapter relate directly to establishing targets or comparing the status of indicators with their targets. In cases where information is not currently available to set a target, actions have been identified to fill the information gap. In other cases, actions relate directly to monitoring the indicator's current status with respect to its target. Within the next year, Kootenay National Park of Canada will refine the indicators in Table 1 to assess ecological integrity. This list will be updated on a regular basis. Parks Canada's goal will be to sustain existing levels of ecological integrity and to work towards improvements.

TABLE 1. INDICATORS OF ECOLOGICAL INTEGRITY

INDICATOR	TARGET	COMMENTS
	GEOLOGY & LANDFORMS	
Burgess Shale.	Development of a plan for protection of fossil locations within two years.	Interim strategy completed.
Disturbed sites.	Rehabilitate one site per year.	Priorities identified in the disturbed sites inventory.
	AQUATIC ECOSYSTEMS	
Native fish species.	a) maintenance of native fish in park waters b) reintroduction of priority native species c) self-sustaining reintroduced stocks	Baseline studies have begun.
Degree of naturally occurring connectivity between water bodies and wetlands.	Connectivity restored where appropriate.	Baseline work has been initiated.
Healthy regional aquatic ecosystems.	Development of multi-agency plan for protection of upper Kootenay, Beaverfoot Rivers (within 5 years).	No work to date.
Percent distribution of non-native fish stocks that compete with native stocks.	Reduction in the distribution of non-native species where they compete with native species.	Locations and targets to be identified.
	VEGETATION	
Long term average fire cycle.	50% of estimated long term fire cycle or approximately 3.5 km² annually through prescribed burns and natural fires.	Vegetation management plan drafted. Prescribed fire program underway.
Area occupied by open forest, montane meadows and young forest stands.	Acceptable targets for the amount and distribution of these vegetation communities will be defined within 3 years.	The extent of all stands is declining due to the lack of wildfire.
Extent of non-native plant populations.	Develop site specific targets within one year.	Non-native species are increasing.
Regional forest management.	In cooperation with BC Ministry of Forests & Environment, develop indicators for: - changes to the proportion and distribution of habitat types - changes to the rate of successional change - fuel reduction, fire guards, and landscape restoration along shared boundaries	Interagency discussions have begun.
Area of grassland in the montane ecoregion.	Reversal in the decline of grassland.	Further work required to quantify desired increase in grassland area.

TABLE 1. INDICATORS OF ECOLOGICAL INTEGRITY

INDICATOR	TARGET	COMMENTS
	WILDLIFE	
Vulnerable, sensitive, threatened and endangered species.	Strive to maintain the presence of nationally and provincially listed species. Annually fund research/monitoring for at least one listed species.	Multi-agency research on grizzly bears is underway.
Grizzly bear habitat effectiveness.	Maintain and improve habitat effectiveness targets. See Table 2 in section 5.7.	The habitat effectiveness model is a useful guide in human use management, but is not the only tool used to make decisions.
Grizzly bear habitat security.	Assess and identify internal habitat security targets within one year. Work with managers of adjacent land to identify and manage regionally significant security areas.	Interagency discussions currently occurring through the Rocky Mountain Grizzly Bear Planning Committee. Existing situation in the park has been determined.
Grizzly bear linkage zones.	Strive for effective internal and regional linkage zones.	Same as above.
Habitat connectivity for large carnivores.	Implement strategies for the park within five years. Work with managers of surrounding land to identify and manage regionally significant wildlife corridors.	Most critical corridors have been identified.
Large mammal highway mortality.	Work towards a 25% reduction in mortality along transportation corridors.	High kill areas and seasonal problems are well understood. Some mitigation is in place.
Annual grizzly bear mortality.	<1% annual human-caused mortality within the park.	Grizzly mortality is currently less than 1%.
Songbird diversity.	Presence of all native species.	Initial baseline monitoring underway.
Elk and mountain goat population demographics (recruitment rates, density, and cow-calf ratio).	Establish population trend for the two species within 5 years. Implement monitoring protocol.	Initial baseline monitoring underway.
Habitat effectiveness targets (wolf) and habitat suitability models(lynx).	Establish habitat effectiveness targets for wolf and lynx within 5 years. Establish lynx suitability model within 5 years.	Interagency research and analysis is ongoing.
Wildlife/human conflicts.	Reduce the number of human/wildlife conflicts.	Baseline work underway.
	COMMUNICATIONS	
Understanding of ecological integrity issues.	Improved understanding of ecological integrity issues by regional residents.	Use baseline data from 1993 Angus Reid survey.
	REGIONAL ECOSYSTEMS	
Landscape unit planning.	Support cooperative landscape unit planning with BC for areas adjacent to the park. Develop and participate in land manager forums for the East Kootenays that focus on shared ecosystem priorities.	Work with the Provincial Interagency Management Committee is underway.

A Place of Historical and Cultural Significance

4.0 A PLACE OF HISTORICAL AND CULTURAL SIGNIFICANCE

4.1 Overview

By linking past and present, our cultural heritage helps us appreciate the human experience and understand who we are as Canadians. Kootenay's cultural resources include 97 known archaeological sites, one Historic Sites and Monuments Board commemorative plaque, one federal heritage building, many historic objects and records, and cultural landscapes and features. Kootenay contains other buildings of local or regional significance.

These cultural resources are part of an irreplaceable heritage. They are important in themselves and also for their combined contribution to the significance of a site and a sense of place. There are two classification levels for cultural resources: Level I: which are directly related to reasons of national historic significance and Level II: which are not related to reasons of national historic significance, but have been determined to have heritage value because of local or regional significance based on historical, aesthetic or environmental qualities.

Commemorative Plaque

Sir George Simpson

Parks Canada defines a cultural resource as "a human work, or a place that gives evidence of human activity or has spiritual or cultural meaning, and that has been determined to be of historic value". It applies this definition to a wide range of resources, sites, structures, engineering works, artifacts and associated records. Parks Canada is committed to identify, protect and present the wide range of cultural resources in its care. This commitment is supported by the *National Parks Act* (1988), *Historic Sites and Monuments Act* (1953), *National Archives Act* (1987), *National Parks Regulations, Parks Canada's Guiding Principles and Operational Policies* (1994) *and the Federal Heritage Buildings Review Office Code of Practices (1996). The Parks Canada Cultural Resource Management Policy* (1994) governs the administration of cultural resources in national parks and establishes the following principles by which they will be managed: value, public benefit, understanding, respect and integrity.

Parks Canada cooperates with other agencies, organizations, businesses, and individuals to manage cultural resources in Kootenay National Park of Canada. All of these parties play an important role in protecting and presenting the park's unique cultural environment.

Despite the completion of some baseline inventories over the last several years, many challenges remain. Better inventories and research will improve cultural resource protection and presentation. It will also support Parks Canada's efforts to offer presentation programs that accurately reflect the park's history and heritage tourism initiatives.

4.2 Strategic Goals

Cultural resources are protected and the associated themes presented.

Parks Canada and Aboriginal people collaborate on the protection and presentation of Aboriginal heritage in Kootenay National Park of Canada.

4.3 Objectives

To maintain the commemorative plaque for Sir George Simpson.

To highlight Aboriginal cultural heritage in collaboration with First Nations in ways that respect their traditions and values.

To protect significant built heritage, archaeological resources, historic objects and documentary records in recognition of their value as irreplaceable cultural resources.

To increase the public's appreciation, understanding and respect for cultural heritage through involvement in the management, protection and presentation of cultural resources.

4.4 Key Actions

Cultural Resource Management

1. In consultation with First Nations and other interested parties, complete a cultural resource management plan for Kootenay National Park of Canada.
2. Improve the presentation near the *Sir George Simpson* plaque; relate the site to the Simpson River and the cultural history of Kootenay National Park of Canada.

3. Implement actions in the *Scope of Collections Statements* and the conservation site surveys.
4. Encourage agreements with other museums and educational institutions for the protection and presentation of cultural collections.
5. With the National Archives of Canada, implement a Parks Canada records management protocol.
6. Foster partnerships to improve protection and presentation of cultural resources (e.g., First Nations, Friends of Kootenay, the Alpine Club of Canada, other community organizations, and private partners).
7. Develop a communications program that addresses cultural resource issues and targets key audiences.
8. Ensure the environmental assessment process considers cultural resources.

Archaeological Resources

9. Update the *Archaeological Resource Description and Analysis*; present research results in a new, user friendly format.
10. Involve First Nations when dealing with aboriginal archaeological sites.

Built Heritage Resources

11. Pursue *Built Heritage Resource Description and Analysis* research to describe and assess architectural and engineering structures.
12. Maintain structures recognized or classified by The Federal Heritage Building Review Office (FHBRO).
13. Demonstrate leadership in the adaptive reuse of federal heritage buildings.
14. Complete *Built Heritage Conservation and Maintenance Plans* for all classified and recognized Federal Heritage Buildings in Kootenay.
15. Ensure contracts with third parties reflect the conservation and maintenance plans.
16. Submit all federal buildings that are at least 40 years old to the Federal Heritage Buildings Review Office for evaluation.

Aboriginal Involvement

17. Raise the profile of Aboriginal heritage in consultation with First Nations.
18 Research traditional knowledge.
19 Pursue the designation of a national historic site commemorating Aboriginal heritage.
20. Advise First Nations about major environmental assessments that involve cultural resources.

A Place for People

5.0 A PLACE FOR PEOPLE

5.1 Overview

In much of the world, the mention of Canada evokes images of snow-capped peaks, conifer-clad slopes, glacial streams, and turquoise lakes. In Kootenay National Park of Canada, the image is reality. Here visitors discover some of the best-known mountain scenery in the world. Of the more than seven million people who visit Canada's Rocky Mountain National Parks every year, about one million travel through Kootenay. More than half stop to visit the park.

A key priority for Parks Canada is providing opportunities for public understanding, appreciation and enjoyment while maintaining ecological integrity. To achieve this, Kootenay National Park of Canada will encourage appropriate activities, carefully plan and manage existing facilities, and provide for renewed emphasis on heritage presentation.

For some of these people, the park's value lies in the opportunity to experience, first hand, its exceptional wilderness. For others, recreational opportunities such as climbing are the key attraction. Whatever the reason, the challenge remains the same—to protect the park's ecological integrity while offering visitors an opportunity for a rewarding, enjoyable experience.

A key priority for Parks Canada is providing opportunities for public understanding, appreciation and enjoyment while maintaining ecological integrity. To achieve this, Kootenay National Park of Canada will encourage appropriate activities, carefully plan and manage existing facilities, and provide for renewed emphasis on heritage presentation.

National parks are a cornerstone of Canada's tourism industry. To fulfill this role, and at the same time protect the values on which tourism depends, requires the cooperation of a number of people and organizations. By working with the tourism sector, Kootenay National Park of Canada will improve its ability to offer visitors a quality experience that reflects the long term goals of the people of Canada for their national parks and sites.

There is no question tourism raises a number of significant issues. How to manage growth, particularly day use? How to make sure that shoulder season use does not disrupt wildlife during the sensitive mating and birthing seasons? How to respond to changing needs and expectations? How to improve aging infrastructure such as roads, campgrounds, and interpretive signs?

To address these issues the park will prepare a heritage tourism strategy that focuses on high quality, authentic learning and travel experiences that are based on the park's key ecological and cultural values. Visitor services and facilities to support these experiences, including overnight accommodation, will continue to be appropriate for their national park setting. Education and awareness programs will engage people's curiosity and help them understand and appreciate the national park. A human use strategy will allow people to continue to enjoy the park, while protecting the area's ecological integrity.

5.2 Heritage Tourism

The World Tourism Organization defines heritage tourism as *"an immersion in the natural history, human heritage, arts, philosophy and institutions of a region or country"*. For the purposes of the national parks, this definition has been expanded to include environmental stewardship and human use management.

What does this mean for Kootenay? Kootenay National Park of Canada will be a place where people find a range of opportunities to enjoy, understand, appreciate and participate in the preservation of its natural, cultural and scenic features. Powerful and memorable experiences will contribute to Kootenay's reputation as one of the world's most unique and environmentally sound tourism destinations.

What does this mean for the tourism sector? A tourism industry that respects the integrity of the natural environment and its importance to long-term economic viability will maintain a competitive advantage in a marketplace that is increasingly demanding quality and authenticity.

5.2.1 Kootenay National Park of Canada's Heritage Tourism Strategy

The *Banff-Bow Valley Heritage Tourism Strategy* has set the future direction for tourism in Canada's Rocky Mountains. A complementary strategy for Kootenay will address human use issues by, among other initiatives, promoting appropriate visitor experiences at the right places and the right times.

5.2.2 Kootenay National Park of Canada's Market Position

As global markets change, more travelers are becoming interested in heritage tourism. Kootenay National Park of Canada will focus its marketing efforts on heritage tourism and will use landscape management unit goals to determine its market position and approach to human use management.

Along with its partners, the park will promote opportunities for natural and cultural heritage education; wilderness appreciation and enjoyment; exploration and adventure. Marketing will be in harmony with environmental realities, including seasonal wildlife sensitivities. A variety of messages that are appropriate for the markets and venues will foster appropriate expectations on the part of the tourism industry and individuals planning to visit the park.

5.2.3 Code of Ethics

Without appropriate environmental practices that protect the integrity of the natural environment, heritage tourism cannot survive. Kootenay, through its heritage tourism strategy, will encourage the local tourism industry to adopt a code of ethics based on the code used by the Travel Industry Association of Canada. This will ensure everyone places the same high value on sustainable tourism practices and will encourage the tourism industry and its partners to commit to constant improvement in stewardship, including the management of waste, water and energy.

5.2.4 Strategic Goals

Canadians and their international guests enjoy high quality, authentic learning and travel experiences that are based on national park values and that bolster a sense of Canadian identity.

A well-informed tourism industry respects the ecological and social values of Kootenay National Park of Canada.

5.2.5 Objectives

To make all visitors and residents aware they are in a national park.

To promote sustainable tourism by encouraging environmental stewardship.

To encourage opportunities, products and services that are appropriate and consistent with heritage and environmental protection.

To help employees share an understanding of the park's natural and cultural heritage with visitors by improving orientation, training and accreditation programs.

5.2.6 Key Actions

1. Involve businesses, First Nations and other groups in preparing a heritage tourism strategy; complete within one year.
2. In partnership with the private sector, develop packages that are consistent with heritage values.
3. Enlist the active participation of the tourism sector in achieving ecological integrity by developing a market position that reflects landscape management goals (see Section 5.7).
4. Define the opportunities that Kootenay offers in each season.
5. Ensure that shoulder season use does not adversely affect ecosystem health.
6. Monitor client satisfaction.
7. Raise the profile of national historic sites and underused facilities.
8. Strengthen private sector employee training and accreditation programs related to sharing heritage understanding with visitors.
9. Collect data on private and commercial use of the park.

5.3 Visitor Services and Facilities

Kootenay will continue to offer a wide variety of experiences, services and facilities appropriate to a national park. Parks Canada will make every effort to manage its facilities in a way that provides fair access for a variety of visitors and reduces the potential for conflicting use. Visitors will enjoy sightseeing, hiking, cross-country skiing, horseback riding, watching wildlife, cycling, canoeing, rafting, fishing, educational programs and other appropriate activities.

In a mountainous national park such as Kootenay, public safety is an important concern. Public safety must be a shared responsibility. Visitors must take precautions that reflect the risk involved in their chosen activity. This involves knowledge of natural hazards, proper equipment and provisions, adequate skill and fitness, and the ability to cope with emergencies. Parks Canada will concentrate on information, facility design, and staff trained in public safety.

5.3.1 Strategic Goal

Appropriate services and facilities allow visitors with varying interests to understand, appreciate and enjoy the park.

5.3.2 Objectives

To provide safe, well-maintained, appropriate and accessible facilities consistent with park zoning that have a minimal impact on the environment.

To provide services that are client oriented.

To work with others to provide high quality, appropriate services.

5.3.3 Key Actions

1. In the next five years, assess all visitor services and facilities to ensure they contribute to specific ecological and visitor experience objectives, and heritage presentation for each landscape management unit.
2. Allow minor changes to facilities and services to address changing visitor needs, public safety, educational opportunities, and ecological issues.
3. Use the Appropriate Use Criteria (see Table 3, Section 7) to evaluate new activities and increases to existing services.
4. Manage outdoor recreation in a way that promotes enjoyment, appreciation and understanding, minimizes environmental impacts, and reduces conflicts between user groups.
5. Ensure services and facilities respect disabled access guidelines.
6. Clearly define heritage tourism and stewardship responsibilities in all leases, licenses of occupation, and business licenses.
7. Continue to operate Radium Hot Springs as a year round attraction.
8. Ensure the hot pools facility serves as an example of heritage tourism and environmental stewardship.
9. Update the public safety plan to guide ongoing public safety programs.

5.4 Awareness and Education

Communication is an essential tool for sustaining Kootenay as a protected area. Interpretation and outreach play a key role in connecting Canadians to our country's heritage and promoting stewardship of park resources. The more Canadians know about the parks, the more they will support and be involved in the management and protection of park resources. As visitors they will become more conscientious. As stakeholders and partners, they will become more involved in long-term protection.

Parks Canada is responsible for ensuring that all visitors have the opportunity to learn about, understand and appreciate the area's nature and history. In addition, it is important for community residents and regional land management agencies to understand national park conservation issues, especially as they relate to ecological integrity. People who are unable to visit the park must also have opportunities to connect to its landscape, history and purpose through outreach programs.

Parks Canada cannot reach all of these audiences through its own programs. The Agency must work with others to reach as many of these audiences as possible. People learn about national parks in many different ways, through many different media. Visiting them is no longer the only way to experience their richness. The advent of new technologies, coupled with traditional means of communicating, has opened new horizons for reaching out to Canadians and international guests of all ages.

Kootenay is in the process of updating the park's themes and messages. The park will work with other agencies, organizations, businesses and individuals to evaluate and enhance heritage presentation. Specific objectives will be developed for each landscape unit.

The Friends of Kootenay will be encouraged to play an important role in supporting park initiatives.

Messages of Significance

A system of protected areas: People will understand that Kootenay is a national park in a Canada-wide "family" of national parks and historic sites administered by Parks Canada. They will know and appreciate that Kootenay represents the Rocky Mountain Natural Region and is part of the Canadian Rocky Mountain Parks World Heritage Site designated by UNESCO and recognized internationally.

The commemorative intent of national historic sites: People will understand and appreciate the historic significance of Sir George Simpson in western exploration. Canadians will appreciate that this is their heritage and will see cultural resources as windows on the past that help us better understand who we are as Canadians.

A sense of place: People will appreciate the special character and unique features of Kootenay's Rocky Mountain environment: the processes that created and continue to shape the landscape and the influence of the landscape and its climate on flora and fauna, human history and present-day activities. Canadians will appreciate that this Rocky Mountains landscape and its wilderness characteristics are an enduring legacy that strengthens our identity as Canadians.

Ecological Integrity: People will understand the role of the park as a protected area within a larger regional ecosystem, the threats and challenges to maintaining the ecological integrity of the park, and what is being done to address these. They will understand that the environment they see today has been and will continue to be influenced by human presence. They will understand that Parks Canada is the lead steward in the protection of the park, but success can only be achieved through cooperation and shared stewardship with visitors, businesses, communities, residents and others both inside and outside the park.

5.4.1 Strategic Goals

Canadians and their international guests appreciate and understand the nature and history of Kootenay National Park of Canada and the role the park plays in Canada's national parks system and the Canadian Rocky Mountain Parks World Heritage Site.

Information is available to help visitors make informed choices.

5.4.2 Objectives

To ensure education and awareness programs build on the idea of shared stewardship and involve third parties.

To provide information that helps visitors understand how to prepare for a safe visit, what a national park can offer and what types of use are appropriate.

To ensure that all information is accurate and includes national messages.

5.4.3 Key Actions

1. Enhance the park's information, interpretive and educational programs by:
   - encouraging and supporting others in the development and delivery of interpretive information and programs;
   - improving non-personal media in areas where visitor use is high;
   - providing leadership in cultivating a "community of communicators";
   - pursuing appropriate opportunities for funding heritage programs and products; and
   - integrating orientation, interpretation, safety, and ecosystem information.

2. Create opportunities in the Columbia Valley to present messages that link the park to the regional ecosystem, the national system of protected areas, and the world heritage site.
3. Provide support to others who are involved in the delivery of park programs and messages.
4. In cooperation with the educational community and cooperating associations, support a curriculum-based program for local schools in the Columbia Valley.
5. Use the park's web site to reach audiences that may not have the opportunity to visit the park.
6. Ensure pre-trip information creates realistic expectations and helps address ecological issues.

5.5 Frontcountry Visitor Accommodation

Kootenay has three frontcountry campgrounds and one group campground. There are five outlying commercial accommodations (four in Sinclair Canyon as well as one at Vermilion Crossing). In addition, accommodation is available in Radium Hot Springs Village, just outside the park.

5.5.1 Strategic Goal

Campgrounds and outlying commercial accommodation provide choices for overnight accommodation in a manner that maintains ecological and commemorative integrity.

5.5.2 Objectives

Redevelopment of outlying commercial accommodation will be consistent with the park's ecological integrity, visitor management, and historical and cultural resource management goals and objectives and will enhance the character of the built environment and result in appropriate visitor activities and services.

To maintain the three frontcountry campgrounds and the one group campground.

5.5.3 Key Actions

1. Site specific guidelines governing redevelopment of outlying commercial accommodation will follow decisions arising out of the outlying commercial accommodation report and will be considered part of this plan.
2. Prohibit the release of new land for commercial or other development in the park.
3. Review existing frontcountry campgrounds; make minor modifications if necessary to address specific ecological considerations, the needs of campers, and travel trends.

5.6 Effective Human Use Management

Human use management is the direction and guidance of people—their numbers, their behaviour, activities, and the infrastructure they require. While human use management may require some restrictions, it should not be seen as limiting peoples' freedom. It should be seen instead, as a means to protect the park for future generations, while allowing as many people as possible to enjoy the experiences and activities it has to offer.

Alternatives for managing access and use vary. Our challenge in developing effective human use strategies is to determine which combination of approaches will address ecological/cultural integrity, education and visitor needs.

Most human use in Kootenay is concentrated along the Kootenay Parkway, especially in the Sinclair Canyon area where the hot springs continue to be a major draw. The valley bottom—where much of the use occurs—is a critical area for many wildlife species, providing food, protection and important travel corridors. Unmanaged human use in these areas and unchecked expansion of facilities to meet ever-increasing demand will result in serious habitat disturbances, increased potential for human-wildlife conflicts, and pressure on park ecosystems.

There are two sides to human use management—supply and demand. Supply is the park's capacity to sustain use (activity type, location, and timing) given its ecological and social objectives. Once this capacity is defined, the park can then influence demand accordingly. Defining capacity will require Parks Canada to collect and integrate ecological, social, and economic factors (See Landscape Management Units below).

More active management of human use will be required if Parks Canada is to offer visitors the opportunity to enjoy a quality experience and fulfill its mandate to protect ecological integrity and provide opportunities for understanding, appreciation and enjoyment.

Landscape Management Units

One of the key challenges for Parks Canada is to integrate ecological and social considerations in the management of human use. To achieve this, the park has been divided into Landscape Management Units (LMUs) that are approximately the size of the home range of an adult female grizzly bear.

Each of the seven landscape management units in Kootenay has ecological integrity and visitor experience objectives as well as habitat effectiveness targets (see section 5.7).

Backcountry

With increasing development and use in the East Kootenays and the Central Rockies Ecosystem, the extent of true wilderness or backcountry is declining. It is important to maintain the integrity of the wilderness and the aspects of wilderness that people value.

Recent studies show that human use of backcountry areas has an impact on wildlife, particularly grizzly bears. There are trails in almost every valley bottom. This increases the challenge of the mountain national parks and surrounding areas to support a viable population of grizzly bears.

Getting away from facilities and roads, or travelling further into the wilderness are important opportunities that will continue to be available. Parks Canada will use the following parameters to manage its wilderness areas:

- controlled human use will not damage ecological integrity;
- visitors will experience a sense of freedom, solitude and challenge;
- vast expanses of protected landscapes will support viable populations of wildlife;
- a range of backcountry opportunities will require little or no infrastructure;
- infrastructure that is provided will be consistent with zoning and Backcountry Opportunity Spectrum;
- the majority of visitors will be self-reliant and will not depend on mechanized equipment, group tours, or commercial guides;
- small groups will predominate; and
- commercial and non-profit groups will help visitors in some areas learn the skills necessary to enjoy the backcountry.

The following apply to backcountry and wilderness lands or those lands classified as Zone II or Zone III. Zone I areas that are not near highways and developed areas are also included.

- Parks Canada will provide opportunities for high quality, appropriate wilderness experiences. This will emphasize traditional means of travel, self-reliance, appropriate numbers of people, building understanding of the impacts of human use on ecological systems and encouraging appropriate visitor behaviour.
- A wide range of backcountry opportunities will continue to be provided including semi-primitive, primitive and wildland experiences. These categories of backcountry opportunities vary with respect to facilities, infrastructure, degree of management and ease of access. Ecological and human experience goals will determine where each type of experience will be provided. Semi-primitive areas provide the greatest support for visitors. At the opposite end of the spectrum are wildlands where there are no facilities and trails and if they exist at all, they receive little maintenance. This Backcountry Opportunity Spectrum (BOS) is based on the recognition that a combination of ecological, physical, sociological and administrative conditions gives value to an area and shapes a visitor's experience.
- Long-standing means of travelling through wilderness such as hiking, cross-country skiing, snow-shoeing and horseback riding will receive preference.
- Mountain bikes are appropriate under specific conditions. Concern about their use to gain faster access to the wilderness means this activity must be assessed using the landscape management unit's goals.

5.6.1 Strategic Goals

Visitors experience the park without impairing its ecological integrity and important cultural resources.

Ecological and social objectives are met for each landscape management unit by assessing and managing human use.

5.6.2 Objectives

To integrate ecological and visitor experience goals.

To provide opportunities for high quality, appropriate wilderness experiences.

To coordinate human use management strategies with Jasper, Yoho and Banff National Parks of Canada and with other neighbouring jurisdictions.

5.6.3 Key Actions

1. Apply the following principles to human use management in Kootenay:
   - Human use management will integrate ecological and social objectives at the landscape unit level;
   - Habitat effectiveness targets, based on landscape management units, will be used as one human use management tool. The overall objective will be to maintain secure habitat for large carnivores while providing a range of opportunities for visitors. Proposals for human use management will consider the number of disturbances rather than specific numbers of people;
   - The analysis of information and drafting of recommendations will be done at the most appropriate scale (local, landscape and regional);
   - Opportunities for understanding and appreciating heritage values will be considered in decision making;
   - Education will be the preferred method of solving conflicts between different types of users and in gaining support for human use management;
   - Use will be restricted or reallocated if its impact is unacceptable;
   - Wildlife travel corridors will remain effective;
   - Principles of precaution and adaptive management will apply when the effects on the ecosystem are uncertain;
   - Proposals to manage human use will be based on the best available information; and
   - The park will use a variety of techniques for managing human use. These include quotas, relocating trails, moving visitors in groups, removing trail signs and trail head facilities, relocating campgrounds, improved communication, and reservation systems.
2. Phase in the implementation of human use management strategies over several years.
   - work with stakeholders, users and interested individuals to identify priorities for implementation.
   - develop a data base and technical systems to support human use management strategies.
   - consult the public concerning quotas, the distribution of quotas between users (e.g., horseback riders, hikers, bicyclists, private individuals, commercial operators, organizations, etc.), and the specific tools or techniques for managing use.
3. Use temporary closures or other restrictions on activities when necessary for public safety (e.g., avalanches, aggressive wildlife) or to protect sensitive natural or cultural resources.
   - inform the public about the reason for these actions as quickly as possible.
   - close facilities or areas permanently only after consultation with the public and as part of the management plan review process.

4. Prohibit the use of personal motorized watercraft.
5. Allow motorized vehicles on designated roads only.
6. Prohibit aerial sports, such as hang-gliding, para-sailing and base jumping.
7. Refuse to issue new fish guiding licenses or to increase the current level of guided fishing.
8. Prohibit the recreational use of over snow motorized vehicles including snowmobiles.
9. Review the management of shoulder season use as part of the landscape management unit planning process.

Backcountry

10. Allow the Alpine Club of Canada to maintain existing huts for climbers and hikers.
    - prohibit new alpine huts or shelters
    - prohibit expansion of the Fay Hut
    - consider minor improvements to the remaining huts where there are demonstrated ecological gains
11. Prohibit the use of helicopters to transport visitors and their supplies to the huts. Allow access by helicopter to service the huts.
12. Prohibit new commercial facilities and the expansion of existing commercial backcountry facilities.
13. Recognize that horses and mules are an appropriate means of experiencing the park in specific locations.
14. Restrict horse use on the Rockwall to a limited number of groups in August and September.
15. Use grazing quotas to manage multi-day horse parties. Apply seasonal restrictions to prevent trail damage when necessary.
16. On an individual basis, assess the impact of popular recreational activities, such as sport climbing, on the experiences of other visitors; determine ways to reduce their impact.
17. Prohibit expansion of the current trail system. Allow some trail rerouting and closures for specific reasons such as ecological integrity, visitor experience, duplication of access, lack of use, or maintenance costs.
18. Review backcountry campgrounds and where there is excessive capacity, better match them with current demands.

5.7 Landscape Management Units

Ecological and visitor experience goals have been defined for Kootenay's seven landscape management units (map 2). Wildlife corridors, vegetation dynamics, wildlife mortality, wildlife disturbance and significant habitats/sites are some of the factors that were considered in establishing ecological objectives. Key factors in developing visitor experience goals included the appropriateness of the activity for the area, amount of infrastructure, and visitor expectations. Visitor experience objectives reflect Kootenay's market position.

More detailed reviews of all activities, commercial and private, in the landscape units will be carried out in the next five years. If existing conditions meet visitor experience and ecological integrity goals, these conditions will be maintained. If goals are not met, then use will be modified.

5.7.1 Strategic Goals

Integrated ecological and visitor experience objectives are achieved for each landscape management unit.

Visitors have opportunities to learn about the major themes of Kootenay National Park of Canada.

PROFILE: GRIZZLY BEAR HABITAT EFFECTIVENESS
ONE TOOL FOR PARK MANAGEMENT

Habitat effectiveness models are one of the many tools Parks Canada relies on to examine the impact of human use on sensitive wildlife species. Using computers, biologists overlay roads, trails, campgrounds, towns, and facilities on a map of vegetation and other landscape features. The resulting model helps determine an area's ability to support species such as the grizzly bear.

Habitat effectiveness is a comparison between the *potential* of an area to support grizzly bears and the value of the area as bear habitat, after accounting for human disturbance (e.g., roads or buildings that remove or compromise habitat; high numbers of people causing bears to avoid an area).

$$\frac{\text{Realized Habitat}}{\text{Habitat Potential}} = \text{Habitat Effectiveness}$$

(Human Use & Disturbance)

To measure grizzly bear habitat effectiveness in Kootenay, the park has been divided into seven landscape management units (LMU). Each LMU is approximately the same size as the home range of a female grizzly bear and is classified according to its ability to serve as useful habitat.

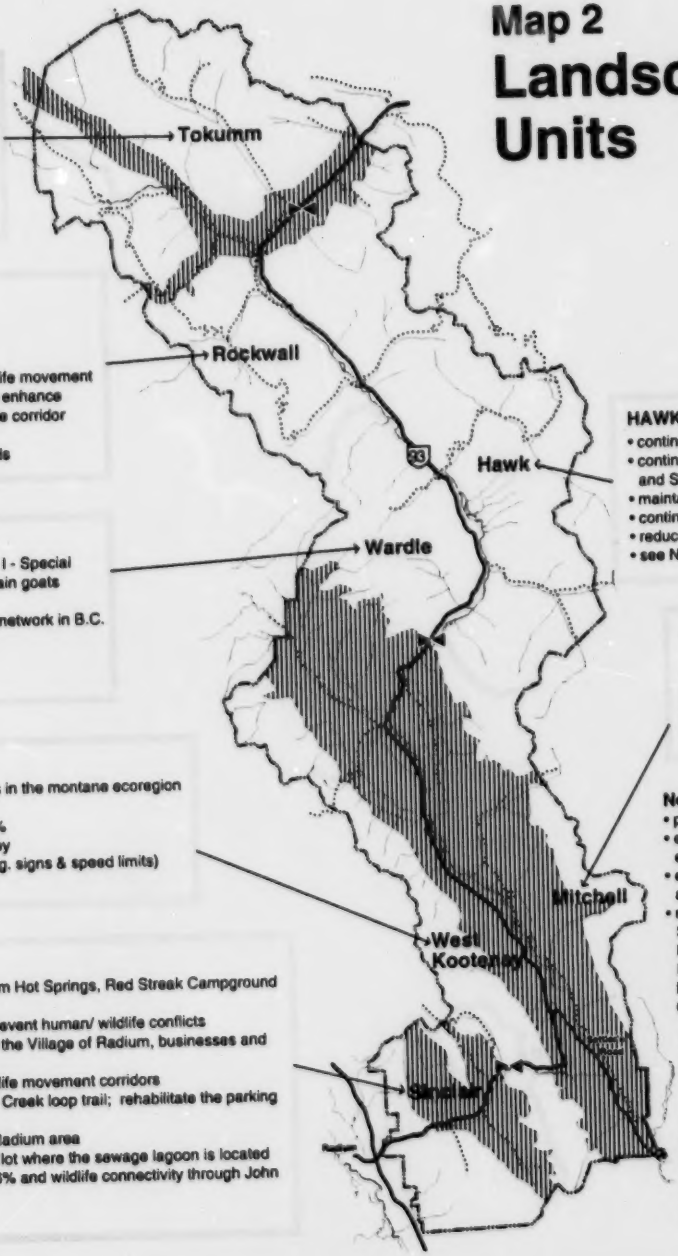
The habitat effectiveness model predicts that use of an area by grizzly bears as part of a permanent home range will be compromised if habitat effectiveness is reduced by more than 20%. Kootenay's goal is to manage human activities in a way that maintains or improves grizzly bear habitat effectiveness above 90% in two LMUs and above 80% in the remaining LMUs (see Table 2).

While habitat effectiveness is a useful tool in determining acceptable levels of human caused impact, it has limitations. In order to manage human use effectively, Parks Canada will use a wide range of tools to help make effective decisions.

TABLE 2. Landscape Management Unit Habitat Effectiveness (HE) Targets

LANDSCAPE MANAGEMENT UNIT	PRISTINE HABITAT QUALITY	CURRENT HE (SUMMER %)	TARGET HE (SUMMER %)
Tokumm	Moderate	86	>86
Hawk	High	87	>87
Rockwall	Moderate	82	>85
Wardle	High	90	>90
West Kootenay	High	80	>80
Mitchell	Very High	88	>90
Sinclair	Very High	86	>86

Map 2
Landscape Management Units



LEGEND
- Grizzly Bear Linkage Zones
- Main Public Roads
- Trails
- Wildlife Movement Pinch Points
- Landscape Management Unit Boundaries

0 5 10 20 Kilometers

TOKUMM
- maintain wildlife corridors on the NW side of Kootenay Parkway between Vermilion Pass and Wolverine Pass
- maintain habitat effectiveness above the current 86% target
- review plans to remove Tokumn Creek or Kaufmann Lake campsites to address cultural heritage and ecological concerns

ROCKWALL
- manage as a premier overnight hiking area
- prepare a human use strategy for the Rockwall area
- maintain habitat effectiveness above the 85% target
- remove the Tumbling/ Ochre campsite to allow for wildlife movement
- manage use, if required, on the Tumbling Creek trail to enhance wildlife movement along the Wolverine/Vermilion wildlife corridor
- improve Helmet and Numa Creek campsites
- maintain the overnight capacity of existing campgrounds

WARDLE
- continue to manage the Mount Wardle area as a Zone I - Special Preservation area because of the population of mountain goats (no trails & no facilities)
- link the existing Kootenay Trail with the provincial trail network in B.C.
- maintain habitat effectiveness above the 90% target
- encourage wildlife connectivity on provincial lands
- see NOTES for Kootenay Parkway action items

WEST KOOTENAY
- use prescribed burns to restore meadow communities in the montane ecoregion
- control non-native plants along Kootenay Parkway
- maintain habitat effectiveness above the target of 80%
- maintain wildlife connectivity along the Kootenay valley
- reduce wildlife mortality on the Kootenay Parkway (e.g. signs & speed limits)
- see NOTES for Kootenay Parkway action items

SINCLAIR
- allow a high level of human use centred in the Radium Hot Springs, Red Streak Campground and the Sinclair/ Kindersley Creek Trail
- close the Kindersley/ Sinclair trail when needed to prevent human/ wildlife conflicts
- implement a strategy to address areas of concern to the Village of Radium, businesses and Parks Canada (ecological, aesthetic)
- reduce infrastructure where possible to improve wildlife movement corridors
- provide a single trailhead for the Sinclair/ Kindersley Creek loop trail; rehabilitate the parking lot on south side of Hwy 93
- gazette existing federal lots adjacent to the park in Radium area
- negotiate with the Province on the acquisition of the lot where the sewage lagoon is located
- maintain habitat effectiveness above the target of 86% and wildlife connectivity through John McKay, Kindersley and Kimpton Creeks
- see NOTES for Kootenay Parkway action items

HAWK
- continue to provide visitor information at Kootenay Park Lodge
- continue to maintain trails to Stanley Glacier, Hawk, Honeymoon, Verdant and Simpson Rivers.
- maintain habitat effectiveness above the 87% target
- continue to allow horses along the Simpson River trail
- reduce the amount of infrastructure at the Marble Canyon Warden Station
- see NOTES for Kootenay Parkway action items

MITCHELL
- maintain the East Kootenay Trail to Pitts Creek
- maintain the Kootenay wildlife corridor and encourage wildlife links to adjacent provincial and private lands
- improve the habitat effectiveness above the 90% target
- see NOTES for Kootenay Parkway action items

Notes: KOOTENAY PARKWAY
- provide a safe, cost efficient transportation corridor through the park
- ensure that the parkway supports Parks Canada's commitment to ecological integrity
- enhance heritage presentation at selected picnic sites, campgrounds and pull-offs along parkway
- maintain existing frontcountry facilities along the parkway (Radium Hot Springs, Kootenay Valley Exhibit, Kootenay River Picnic site, McLeod Meadows Campground and Picnic site, Crooks Meadows group camp, Kootenay Crossing Exhibit, Dolly Varden Picnic Site, Vermilion Crossing Picnic Site, Sir George Simpson NH Site Monument, Marble Canyon Campground, and the Continental Trail Exhibit).

GRIZZLY BEAR HABITAT EFFECTIVENESS MODEL

A grizzly bear habitat effectiveness model has been developed to determine the landscape's potential to support grizzly bears, and quantify the effects of human activities on grizzly bears and their habitats.

A rating of 100% means that the natural ability of an area to support grizzly bears is not impacted by human disturbance. Studies show that when the habitat effectivness is lowered by as little as 20%, that the areas' capacity to support grizzly bears is reduced. Habitat effectiveness greater than 90% is considered secure for bears.

5.8 TOKUMM

Human use is low in most of this 193 km² unit allowing visitors to enjoy a backcountry wilderness experience. Human use is higher in the Ochre Creek Valley because of its link with Rockwall, the most popular backcountry area in Kootenay. Human use is also higher at day use sites around Marble Canyon and the Paint Pots. The Paint Pots is an important site for Aboriginal People. In this unit visitors also have opportunities to see the Great Divide, dramatic mountain scenery, a regenerating burn, deep canyons, and glacial features. The unit has 37 km of trails and 7 kilometres of public roads.

5.8..1 Objectives

Ecological

To maintain the existing level of grizzly bear habitat effectiveness in the Upper Tokumm and Prospector Valleys.

To enhance an important wildlife corridor that connects Kootenay (via the Ottertail River), provincial lands to the west, and the Bow Valley (via Vermilion Pass).

To improve wildlife movement through the pinch point in the Marble Canyon/Paint Pots area.

Visitor Experience

To provide short trails and on-site interpretation about special features at Marble Canyon and the Paint Pots.

To provide opportunities for solitude as well as challenging mountain activities such as climbing and scrambling.

5.8..2 Key Actions

1. Maintain wildlife corridors on the north-west side of the Kootenay Parkway between Vermilion Pass and Wolverine Pass.
2. Review cultural and ecological concerns associated with Tokumm Creek or Kaufman Lake campsites; relocate if necessary.
3. Review and upgrade on-site interpretation at the Paint Pots.

5.9 ROCKWALL

Most of the designated backcountry campsites in Kootenay National Park of Canada are in this unit. Features such as Numa Pass, Floe Lake, the Rockwall and Tumbling Pass, all within a day's travel from the highway, add to the popularity of this 165 km² area. Access from provincial lands (e.g., through Wolverine Pass) is limited, allowing the area to be managed as a backcountry wilderness in close proximity to more heavily used areas. There are 63 km of trails.

5.9.1 Objectives

Ecological

To maintain large carnivore habitat and linkage zones in an area of relatively high human use.

To reduce bear habituation and bear/human conflicts.

To determine if relocating trails and campsites would decrease their impact on wildlife.

To enhance the wildlife corridor between Wolverine and Vermilion Pass (via Tumbling Creek).

Visitor Experience

To provide semi-primitive infrastructure for people on multi-day backcountry trips.

To manage human use according to the overnight capacity of existing backcountry campgrounds.

Visitors will encounter other hikers, but not feel crowded.

5.9.2 Key Actions

1. Manage as a premier overnight hiking area.
2. Develop a human use strategy for the Rockwall Landscape Unit.
3. Remove Tumbling/Ochre campsite to allow for wildlife movement.
4. Manage use, if required, to enhance wildlife movement along the Wolverine/Vermilion wildlife corridor.

5. Improve Helmet and Numa Creek campsites.
6. Maintain the overnight capacity of existing campgrounds.
7. Restrict private horse use to a limited number of groups in August and September.

5.10 HAWK

At 306 km², this is the largest landscape management unit in Kootenay National Park of Canada. Trails, from the popular Stanley Glacier and Fireweed trails to the seldom used Verdant Creek trails, provide access to a range of visitor experiences. The unit's 44-km trail network also provides access to Banff National Park of Canada and Mt. Assiniboine Provincial Park. Commercial accommodation and a visitor centre are located at Vermilion Crossing. The Sir George Simpson plaque is in this unit.

5.10.1 Objectives

Ecological

To protect access to habitat in the valley bottom adjacent to highway 93 and south of the Simpson River for elk, goats, sheep and wolves.

To reduce wildlife mortality (especially elk) on the highway.

To maintain high quality grizzly bear habitat in the Verdant Creek area.

Visitor Experience

To offer visitors an opportunity to experience solitude in a peaceful wilderness setting.

To provide only primitive infrastructure.

To provide opportunities for extended backcountry trips through links to trails in Banff and Mt. Assiniboine.

5.10.2 Key Actions

1. Continue to maintain trails to Stanley Glacier, Hawk, Honeymoon, Verdant and Simpson Rivers.
2. Continue to allow horses along the Simpson River Trail.
3. Reduce infrastructure at the Marble Canyon Warden Station.
4. Continue to provide visitor information at Vermilion Crossing.

5.11 WARDLE

The Wardle unit, along with adjacent provincial land, encompasses a section of the headwaters of the Kootenay River. A large part of this 219 km² unit is Zone I (Special Preservation) to protect goat, grizzly and cougar habitat. Sora and Sundew ponds are designated as an Environmentally Sensitive Site to protect montane wetlands and their associated amphibian and avifauna populations.

5.11.1 Objectives

Ecological

To maintain wildlife movement along the major north-south wildlife corridor (Amiskwi, Beaverfoot, Kootenay) that passes through this unit.

To reduce elk mortality along Highway 93.

To use prescribed fire, in areas away from the highway, to restore elk winter range.

To continue to monitor the Mountain Pine Beetle.

Visitor Experience

To provide opportunities through activities such as hiking, mountain biking and horseback riding on existing trails.

To offer multi-day hiking and horseback riding on existing designated trails through links with trails and roads in the province.

To limit human use to existing levels.

5.11.2 Key Actions

1. Continue to manage Mt. Wardle as a Zone I - Special Preservation area because of the population of mountain goats (e.g., no trails and no facilities).
2. Encourage wildlife connectivity on provincial lands.
3. Manage for low levels of human use on fire roads and low elevation trails.
4. Work with the province to link the Kootenay Trail to the provincial trail network in British Columbia.
5. Close the Hector Gorge picnic site because of low use.

5.12 WEST KOOTENAY

The West Kootenay unit, an area of 122 km², has limited visitor access and only 12 km of trails. Services along Highway 93 include the Kootenay River and Dolly Varden picnic sites, McLeod Meadows Campground, and Crooks Meadows group camp. This unit contains a major section of the Kootenay Valley wildlife corridor.

5.12.1 Objectives

Ecological

To reduce wildlife mortality on Highway 93.

To restore elk habitat.

To control non-native plants.

To use prescribed fires to maintain and restore meadows.

To protect unique wetland and terrestrial meadows along the Dolly Varden trail.

To assess the health of amphibian populations.

Visitor Experience

To provide opportunities to experience this unit through camping in designated areas and for trail-based activities such as hiking, mountain biking and horseback riding.

To focus trail activities on the Dolly Varden trail.

5.12.2 Key Actions

1. Use prescribed burns to restore meadow communities in the montane ecoregion.
2. Control non-native plants along the Kootenay Parkway.
3. Maintain wildlife connectivity along the Kootenay Valley.

5.13 MITCHELL

This 240 km² unit contains spawning Kokanee salmon, the most northern occurrence of the Western Larch, a forest with pine bark beetles, critical montane wetlands, an important wildlife movement corridor for elk and wolves, and declining populations of bighorn sheep. Commercial and private vehicles use Settler's Road, a 13-km gravel road, to reach provincial lands that are used for resource extraction and commercial river rafting. The unit has 20 km of trails.

5.13.1 Objectives

Ecological

To reduce wildlife mortality on Highway 93, especially during the late fall/early winter and spring.

To reduce the impact of the unit's roads.

To make extensive use of prescribed fire to maintain open vegetation and montane meadow habitats.

To assess the impact of recreation on the river and commercial traffic (Settler's Road) on aquatic communities in the Kootenay River.

To manage the Daer Creek area to support the needs of the area's sheep population.

To cooperate with provincial agencies and developers to reduce fragmentation along the south-east corner of the park.

Visitor Experience

To offer similar opportunities for day use as in the adjacent units (e.g. few trails, multiple use trails).

To provide a loop trail by using the East Kootenay Fire Road and Hwy 93.

To provide easy trail access to small lakes (e.g. Dog Lake).

To allow private and commercial river trips on the Kootenay River.

5.13.2 Key Actions

1. Maintain low levels of human use.
2. Maintain the East Kootenay Trail as far as Pitts Creek.
3. Maintain the Kootenay wildlife corridor and encourage wildlife links with adjacent provincial and private lands.
4. Encourage wildlife connectivity on adjacent provincial lands.
5. Work with provincial officials to manage access to Assiniboine Provincial Park.
6. Restrict commercial use of Settler's Road to weekdays (see Transportation & Utilities, Section 6).

5.14 SINCLAIR

The Sinclair unit has the warmest and driest climate in the mountain national parks. Two Environmentally Sensitive Sites (Radium Hot Springs and Iron Gates Pictograph) and a Zone I - Special Preservation area (Dry Gulch/ Stoddart Creek) contribute to the uniqueness of this 133 km² area. Human use is concentrated in three major nodes - Redstreak Campground, Radium Hot Springs, and the McKay Creek compound. Backcountry opportunities include the Kindersley/Sinclair hiking trail and short day hikes up Redstreak and Kimpton Creeks. Key attractions include the Rockwall Fault, Sinclair Canyon, Radium Hot Springs pools, and a diversity of habitats from dry grasslands to wet alpine meadows. Accommodation is available at Redstreak Campground and four OCAs.

5.14.1 Objectives

Ecological

To cooperate with the Village of Radium Hot Springs, private developers and provincial ministries to maintain a viable sheep population in the region.

To reduce bear/human conflicts and improve habitat effectiveness in the upper Kindersley and Kimpton Creek areas.

To protect the area's unique vegetation.

Visitor Experience

To offer visitors an appropriate range of services and facilities in Kootenay.

To give visitors the opportunity to learn about species such as grizzlies, badger, bighorn sheep, bobcat, cougar and wetland birds. These species depend on critical habitats in the Columbia Valley outside the park.

To provide a limited range of frontcountry accommodation.

5.14.2 Key Actions

1. Allow a high level of human use, centred in the Radium Hot Springs, Red Streak Campground area.
2. Provide a single trail head for the Kindersley/Sinclair Creek loop trail; rehabilitate the parking lot on the south side of Highway 93.
3. Temporarily close the Kindersley/Sinclair trail as required to prevent human/wildlife conflicts.
4. Encourage the village of Radium and businesses to participate in a strategy that addresses mutual concerns in Sinclair Canyon (ecological concerns, traffic, heritage presentation, and aesthetics).
5. Reduce infrastructure and facilities where possible to improve wildlife corridors.
6. Gazette existing federal lots adjacent to the park in the Radium area; and negotiate acquisition of the lot where the sewage lagoon is located.

Transportation And Utilities

6.0 TRANSPORTATION AND UTILITIES

6.1 Overview

In a national park, road and rail transportation is more than just moving people between destinations. A key part of managing human use, it provides travelers with the opportunity to sight-see and explore the mountain environment. In fact, almost all park visitors see and experience the park from roads or roadside facilities.

A major secondary highway (#93) through Kootenay is an important link between Calgary and Invermere. The use of Settlers Road is an issue. This road is used by both the public and industry to reach adjacent provincial lands, creating the potential for conflict between recreational and commercial traffic and impacting on the park environment.

Environmental Impact

Unfortunately park roads have a considerable impact on the environment. For this reason, Parks Canada cannot simply respond to demand by expanding parking lots and other infrastructure. Instead, the park must use existing transportation infrastructure more effectively and explore alternatives.

Wildlife

Park roads fragment wildlife habitat and restrict wildlife movement.

Dozens of animals are killed by vehicles every year.

Aquatic Ecosystems

Salt and other contaminants in run-off disturb aquatic ecosystems.

Roads disrupt natural water flow, affect the health of riparian areas, and alter the natural evolution of the park's aquatic resources.

Scenic Flights

Air traffic, specifically scenic flights can affect both the environment and the visitor experience, especially in backcountry areas. Although air traffic over the park is currently low, the potential exists for an increase in the number of scenic flights during the period covered by the management plan. While developing regulations with Transport Canada may be an option, voluntary guidelines provide an opportunity to work more directly with the people affected by any change to this activity.

Utilities

Utilities are concentrated in Sinclair Canyon.

6.2 Strategic Goals

Park roads are managed in a way that supports Parks Canada's commitment to ecological integrity and enables visitors to experience the park.

The impact of aircraft on ecological integrity and visitor experience is kept to a minimum.

Utilities have a minimal impact on ecological integrity and the visitor experience.

6.3 Objectives

To maintain the Kootenay Parkway, allowing visitors to see and experience the park.

To reduce the environmental impact of roads, including wildlife mortality.

To identify areas where roads and related transportation development have caused loss of terrestrial, riparian and aquatic habitat; to restore these habitats where feasible.

6.4 Key Actions

Ground Transportation

1. Participate with Yoho and Banff in an examination of ground transportation to the year 2010. The study will consider the following:
    - ecological constraints to infrastructure development and vehicle use;
    - public transit;
    - improved access;
    - opportunities to learn about the park;
    - parking;
    - traffic flow; and
    - regional transportation needs and issues.
2. Continue to collect traffic data to document changing road use.
3. Monitor private and commercial traffic volume on Settler's Road to identify user conflicts and environmental impacts.
4. Allow commercial vehicles to use Settler's Road on weekdays only; work with all users to identify ways to protect wildlife and avoid conflicts between recreational and commercial traffic.
5. Prohibit any upgrade to Settler's Road, except those identified as major public safety concerns.
6. Keep the disruption of traffic, as a result of prescribed fires near Kootenay Parkway, to a minimum.
7. Improve interpretive signs and other media/facilities along the Kootenay Parkway.
8. Continue to reduce the extent of non-native plants along the highway.
9. Identify sensitive areas, critical wildlife habitat, and wildlife corridors along transportation routes.
10. Establish long-term goals with transportation corridor managers for restoration and mitigation of past, present, and future effects on terrestrial and aquatic systems in Kootenay.
11. Reduce the impact of routine winter road maintenance—e.g., crushed gravel, sand, and salt.

Utilities

12. Ensure new utilities have minimal aesthetic and environmental impact.
13. Reduce the impact of utility corridors in Sinclair Canyon.

Overflights

14. Work with local commercial operators on voluntary guidelines for scenic flights.
15. Work with land managers and provincial licensing authorities to manage the impact of commercial flights associated with activities adjacent to park boundaries (e.g., heli-hiking, heli-skiing).

7.0 A PLACE FOR OPEN MANAGEMENT

7.1 Introduction

Kootenay National Park of Canada belongs to the people of Canada. All citizens should feel confident they have an opportunity to participate in key decisions concerning their park. Areas that appear to be of the greatest concern for the public are ecological integrity and cumulative effects, access to park areas, limits to growth, appropriate use, and effective public involvement. This section highlights key strategic changes to ensure decisions are made in a consistent, fair, open, and responsive environment.

The following values and principles will guide governance and decision-making in Kootenay National Park of Canada.

Values

- restraint and self-discipline today, for the sake of future generations.
- open, participatory decision making.
- equal opportunity for a sense of wilderness and a range of quality park experiences.
- predictable, consistent and fair regulation.
- competent, accountable management.
- respect for others.

Principles

All actions, initiatives and programs undertaken to realize the Vision are implemented in full accordance with the spirit and requirements of the *National Parks Act*, *Parks Canada's Guiding Principles and Operational Policies*, and the *Kootenay National Park of Canada Management Plan*.

Standards are defined, enforced, and reviewed to ensure the maintenance of ecological and commemorative integrity.

Regulation and decision-making are responsive, open, participatory, consistent and equitable.

There is individual and shared responsibility to provide for protection and preservation of heritage resources.

Proactive, adaptive, and precautionary management takes into account cumulative effects and limits to growth in recognition of the finite nature of the park.

Stewardship, based on sound science, is practiced through environmentally sensitive management, mitigation and restoration.

Integrity and common sense underlie all decision-making.

Planning and decision-making are coordinated on a regional basis.

Partnerships are encouraged subject to appropriate checks and balances.

There is a shared responsibility to achieve ecological, social, cultural and economic sustainability.

Public participation in decision-making will be guided by the following fundamental practices:

- access to clear, timely, relevant, objective and accurate information;
- adequate notice and time for public review;
- careful consideration of public input;
- feedback on the nature of comments received and on Parks Canada's response to participants; and
- respect for all interested parties and individual viewpoints.

7.2 Public Involvement

Parks Canada is committed to ongoing public involvement. The type of involvement will vary depending on the nature of the decision. Various groups and individuals will be asked for input on implementing this management plan's recommendations. Participation may consist of advisory groups, open houses, working groups, meetings with neighbouring jurisdictions, or commenting via the Internet. Parks Canada will also host an annual public forum to review and discuss the implementation of the management plan. The public will play an important role in designing the kind of forum that best meets their needs.

This plan sets out several public processes. These include the *Development Review Process*, and a process to review proposed changes in use or level of use, known as the *Appropriate Use Framework*. Kootenay National Park of Canada is also committed to providing more opportunities for the public to participate in the research program.

7.2.1 Strategic Goal

Key policy, land-use and planning decisions are timely, fair and consistent, and are arrived at in an open and participatory manner.

7.2.2 Key Actions

1. Establish a process for an annual review of progress in implementing the management plan.
2. Report regularly to the public on the implementation of the management plan and how it relates to the *Parks Canada State of the Parks Report*.
3. Involve the public in landscape unit planning (e.g., human use strategy for Rockwall).

7.3 Development Review Process

Buildings, roads, bridges, and other facilities are all essential to the enjoyment, operation, and management of a national park. The size, design, and use of these facilities must meet the needs of visitors and at the same time respect the park environment. They must also take into account the legislative and liability questions associated with development in a national park.

Main Components of the Development Review Process

The process has two stages—the development permit review and the building permit review.

1. An Advisory Development Board (ADB) facilitates public involvement. The board reviews all applications publicly to ensure they are appropriate and meet the requirements of the *National Parks Act*, regulations and planning. The ADB submits its recommendations to the park superintendent.
2. A District Review Board assesses procedural questions arising from ADB recommendations and decisions by the superintendent.
3. Sunset clauses limit the period during which an approval is valid.
4. High standards for environmental assessment incorporate the requirements of the *Canadian Environmental Assessment Act* (CEAA).

7.3.1 Strategic Goal

The Development Review Process ensures public input and the consistent application of guidelines to development, including major renovations, in Kootenay National Park of Canada.

7.3.2 Objectives

To ensure development reflects the mandate as described in the *National Parks Act*, and Parks Canada's policy.

To adhere to high standards for environmental assessment.

To improve consistency.

To involve the public.

7.3.3 Key Actions

1. Implement the Development Review Process.
2. Apply appropriate development and business licensing criteria to commercial activities that may not require development but could have an impact on the park.

7.4 Appropriate Use

Parks Canada is responsible for making decisions about what type of use is appropriate in a national park. In cases where the *National Parks Act*, *Parks Canada Guiding Principles and Operational Policies*, or the *Park Management Plan* are not clear on appropriate use, Parks Canada must rely on other, clearly defined criteria in coming to a decision. Adjustments may be necessary at times and the review process must be flexible enough to accommodate changing public values and perspectives.

7.4.1 Strategic Goal

Appropriate use is evaluated using clear criteria that respect the mandate as described in the National Parks Act and Parks Canada's policy framework.

7.4.2 Objectives

To apply appropriate use criteria in assessing new activities and uses, and changes in levels of use associated with existing activities.

To encourage public involvement in the assessment of appropriate use.

7.4.3 Key Actions

1. Adopt the appropriate use criteria from the *Banff National Park Management Plan* (Table 3).
2. Set up a process to examine, annually, proposed new activities and use, and significant changes in levels of use.
   - invite the public to review proposed changes.
   - assess proposals against the criteria for appropriate use.

Table 3 - Appropriate Use Criteria

The following criteria will be used to evaluate the merits of a new use, a change in an existing use, or a significant change in the level or intensity of use. The criteria are all relevant but are not meant to be exhaustive or absolute. They are intended to guide the evaluation process. In applying the criteria, the primary consideration is how the proposed change contributes to or detracts from the spirit and intent of the management plan, the *National Parks Act*, and Parks Canada's policy. The criteria are taken from the Banff-Bow Valley Study Round Table's *Summary Report*.

Effects on Culture and Heritage

- Seeks to assess the extent to which the proposed change impacts the ecological integrity of the region. The assessment will include the effect of participation in the activity as well as the facilities and services required to support the activity.

Effects on Culture and Heritage

- Seeks to assess the qualitative dimension and preservation of a use that contributes to the region's heritage and cultural integrity. The assessment will reflect an understanding, appreciation of, and respect for the region's culture and heritage, and evolving cultural identity including aboriginal people.

Quality of Experience

- Investigates the extent to which the participant's and other's quality of experience is enhanced or diminished as a result of the proposed change. Its application recognizes that different visitors seek a broad range of different experiences, and that they value different resources, facilities and services in different ways.

Economic Effects

- Attempts to understand the economic effects of the proposed change. Issues that would be considered include: cost for visitors to the park, cost and revenues to Parks Canada, and effect on local, regional and national economies and market conditions.

Public Safety

- Used to determine the extent to which the proposed change imposes risks or dangers to participants or others.

Equity and Access

- Seeks to ensure that all citizens have a fair, reasonable, and equitable opportunity to participate in, and benefit from, the range of appropriate activities and experiences available in Kootenay National Park of Canada. It will consider such factors as economic status, physical capabilities, and place of residence of the visitor.

Social Effects/Quality of Life

- Examines the social implications of the proposed change. Questions applied here would speak to: level of change to the region's existing social patterns and needs, effects on the social service structure, effects on social indicators (e.g., income distribution, housing costs, levels of crime, etc).

Education and Awareness

- Focuses on the extent to which the proposed change contributes to better understanding and appreciation of natural and cultural heritage, Kootenay National Park of Canada, its role within the Canadian National Park System and in the larger ecosystem.

Level of Use: Frequency, Timing, and Quantity

- Would involve questions such as: How often does a proposed activity occur? When does it occur (e.g., season)? How many individuals are involved? What is the level of support required?

Physical Setting Related

- Has two components. The first focuses on whether the proposed change is well-suited to the physical setting of Kootenay National Park of Canada. The second considers to what extent the proposed change is dependent upon a national park setting.

Heritage Tourism

- Focuses on the extent to which the proposed change contributes to the park's Heritage Tourism goals.

Environmental Stewardship

- Focuses on the extent to which the proposed change contributes to the park's Environmental Stewardship goals.

7.5 Regional Coordination

Parks Canada believes that, for the ecosystem to be sustainable, everyone concerned must be involved in finding solutions to issues and working towards common goals. Research, restoration, education, tourism and stewardship initiatives will all be more successful if we understand the role of the park within the larger region. This coordination will operate at many levels. Some initiatives will be local, while others will involve the entire ecosystem.

Kootenay National Park of Canada has always worked with adjacent jurisdictions on questions of common concern. Most often, these cooperative activities only involve operational staff, not managers. They have also focussed on the land immediately surrounding the park, not on the entire ecosystem. In the past few years, several groups have begun to coordinate land use, planning and ecosystem initiatives on a broader scale.

1. The British Columbia Interagency Management Committee includes representatives from all provincial ministries. Parks Canada has been invited to participate in the committee. One of the key goals is to implement the *East Kootenay Boundary Land Use Plan* and to coordinate information exchange around land use decisions.
2. The Central Rockies Ecosystem Interagency Liaison Group (CREILG) was established in 1991 to share information concerning the ecosystem. Membership includes Parks Canada, provincial government departments (British Columbia and Alberta), several universities, the Whyte Museum, the World Wildlife Fund, and private industry. In 1995, CREILG published an *Atlas of the Central Rockies Ecosystem* (White, 1995) that pulled together data bases and identified ecosystem issues. CREILG is currently involved in joint fire planning, a wolf study, the East and West Slopes Grizzly Bear Studies, and an access workshop.

Kootenay National Park of Canada is part of the traditional territory of the Ktunaxa and Shuswap Nations. First Nations concerns are an important consideration in land-use planning.

7.5.1 Strategic Goal

Ecological, social and economic systems in the park and greater ecosystems benefit from integrated management.

7.5.2 Objectives

To share expertise in heritage presentation and tourism with gateway communities and to increase understanding of park goals.

To coordinate regional development and use (e.g., tourism strategies, location and type of development, and cumulative effects).

To contribute to an integrated network of protected areas.

To encourage cooperative backcountry management with adjacent lands.

To build lasting relationships.

To continue to work with regional communities and agencies in areas of public safety and emergency services.

7.5.3 Key Actions

1. Continue to participate actively on committees established by other agencies, to discuss issues of common concern in the Central Rockies Ecosystem (e.g., ecological integrity, transportation, wildlife mortality).
2. Liaise with local communities to promote appreciation and enjoyment of the region's natural and cultural heritage.
3. Liaise with regional stakeholders to integrate ecosystem objectives; (e.g., "Living Landscapes", an initiative to improve the understanding of the human and natural history of the Columbia Basin).
4. Participate in environmental assessments or provincial/regional reviews of projects outside the park that are likely to have an adverse effect on the park's environment.
5. Support initiatives in the Central Rockies and East Kootenays that enhance a healthy regional ecosystem.
6. Participate in environmental, social, and economic initiatives that contribute to achieving the park vision and the Parks Canada mandate.

7.6 Research and Information Management

Many of the actions identified in this plan require the collection and analysis of information. Decision-makers, whether they be park managers, tourism operators, local residents or park visitors, need access to this information and, if information is not available, the ability to gather it efficiently. By helping us understand the relationship between "natural" and human processes, interdisciplinary research makes an important contribution to the park's ecological integrity objectives.

In an era of powerful new data management technologies, one of the biggest challenges for decision-makers is organizing and analyzing the diverse kinds of information available to them. Because ecosystem-based management strives to integrate our understanding of whole ecosystems—from continental through regional to park or even community- specific—scientists and information managers must make difficult choices about what to study and document. Studies must focus on significant issues and assess the area's environmental, social, and economic well-being over time. A common approach is to select a component of the ecosystem, called an indicator, and track its health or changes in its status. Careful choice ensures a full range of indicators (e.g., water quality, carnivore populations, vegetation structure or rare and endangered species, visitor use) reflects the overall ecosystem in a meaningful way.

7.6.1 Strategic Goal

Research and information, shared among agencies and individuals in the Central Rockies and East Kootenays Ecosystems, support sound decisions.

7.6.2 Objectives

To increase the public's understanding of the information on which decisions are based.

To implement an integrated research and monitoring program.

To collect and better integrate Aboriginal traditional knowledge, local knowledge and scientific information into decision-making.

To support research in the park.

7.6.3 Key Actions

1. Develop an integrated GIS data base with other agencies in the Central Rockies and East Kootenays to support research and decision making.
2. Invite the scientific community, government, non-governmental organizations, and the public to help identify information needs, develop strategies to fill information gaps, and understand results.
3. Set up an interdisciplinary science committee, consisting of academics and stakeholders, to help develop an integrated science program and to conduct on-going peer review.

4. Collaborate with others to improve the use of science to support decision-making.
5. Work with agencies that collect and analyze information for various purposes, including education and environmental assessments.
6. Make scientific and monitoring results widely available.
7. Establish, in partnership with others, programs to fund cultural, ecological, social and economic research.
8. Increase social science research with an emphasis on a systematic approach to the collection of human use data.
9. Collect information about ecosystem changes and the role of people in the mountains over the broad span of time using archaeology, history, and Aboriginal traditional knowledge.
10. Research shoulder season habitat security requirements for sensitive wildlife species.
11. Balance the scope of research and management programs to provide more emphasis on poorly understood species including invertebrates, fungi, non-vascular plants, birds, and small mammals.
12. Refine the park's understanding of baseline ecological conditions for vegetation and critical ecological processes such as fire, forest insects, and disease.
13. Engage in collaborative research (e.g., universities, the Canadian Forest Service, provincial ministries) to assess ecological issues and the status of native biodiversity.
14. Establish a planning framework to guide research needs.
15. Give priority to multi-disciplinary research.

A Place for Environmental Stewardship

8.0 A PLACE FOR ENVIRONMENTAL STEWARDSHIP

8.1 Overview

Environmental stewardship reduces the impact of our daily activities on the environment. It is concerned with a range of issues from water quality and energy consumption, to chemical use and contaminated sites. It also includes a wide variety of activities from recycling and reducing resource consumption to restoring disturbed landscapes.

While Parks Canada is responsible for providing leadership in environmental stewardship, effective action requires broadly based support from local residents, businesses and park visitors.

The Government of Canada is committed to the concept of environmental stewardship. This ensures that every government department and agency meets or exceeds environmental laws and regulations, follows the best

environmental practices available, and develops and implements a sound environmental management system. Many of the Government's commitments to the Greening of Government Operations have been formalized through amendments to the *Auditor General's Act* and the appointment of the Commissioner of the Environment and Sustainable Development. As a result, Parks Canada must now report to Parliament on its progress in fulfilling its environment responsibilities.

An environmental management system (EMS) helps organizations and businesses apply environmental stewardship considerations to every business decision. It ensures that the greatest environmental risks receive the highest priority.

8.2 Strategic Goals

Parks Canada demonstrates sound environmental practices in all its activities, services and products.

Environmental stewardship is fundamental to the operation of all businesses and institutions.

Visitors and residents contribute to the principles of environmental stewardship and sustainability.

8.3 Objectives

To improve environmental performance by developing and implementing an environmental management system.

To make environmental stewardship a condition for all new leases, lease renewals and business licenses applications.

To determine the most appropriate location and method for disposing of solid waste.

To encourage local residents, businesses, and park visitors to share responsibility for environmental stewardship.

8.4 Key Actions

1. Eliminate any remaining Polychlorinated Biphenyls in the park.
2. Eliminate the release of Ozone Depleting Substances in park operations.
3. Prevent contamination from petroleum storage tanks and comply with *Canadian Environmental Protection Act* regulations.
4. Employ an integrated pest management system.
5. Apply safe and environmentally responsible management practices to the acquisition, reporting, monitoring, handling, storage, safe use, transportation, and disposal of hazardous waste.
6. Implement the contaminated site strategy, focusing on the clean up of priority sites.
7. Reduce emissions by identifying sources of pollution; minimize activities and products that cause harmful emissions.
8. Reduce gasoline consumption, promote the use of alternative fuels, select new vehicles based on their ability to use alternative fuels.
9. Develop energy management plans for all buildings; incorporate energy efficiency and cost effective technology when building or upgrading facilities.
10. Meet the goal, set by the Canadian Council of Ministers of the Environment, of reducing solid waste by 50% of the 1988 levels (e.g., through purchasing, reuse, recycling, and composting).
11. Ensure the use of surface and ground water does not impair aquatic and riparian systems.
12. Implement a water conservation program for all park and commercial facilities.

13. Purchase products and services that meet environmental specifications; replace as many products and services as possible with others that are more environmentally friendly.
14. Demonstrate responsible environmental management to visitor and other groups by ensuring service and facilities are examples of best practices.

8.5 Sewage Treatment

Releasing effluent into park waters has a variety of consequences. Among the most notable are changes in their aesthetic appeal and in the composition of aquatic communities. Adequate sewage treatment reduces the effect of effluent and water conservation helps to reduce the amount of sewage that requires treatment.

A secondary treatment facility in the Town of Radium processes wastewater from Outlying Commercial Accommodations in the Radium Hot Springs area. Numerous septic fields and holding tanks are located throughout the park. Effluent from Red Streak Campground and the Administration Building is released into a sewage lagoon near the park boundary.

8.5.1 Strategic Goals

In the long term, effluent targets match, as closely as possible, the natural composition of the receiving water bodies.

Sewage from facilities that are not connected to a treatment plant have minimal environmental impact.

8.5.2 Objectives

To reduce the impact of septic fields, sewage lagoons, septic tanks, and other human effluent on water resources to a minimum.

To promote water conservation.

To improve our understanding of long range and local, point and non-point-source pollutants and, where feasible, reduce or eliminate contamination.

8.5.3 Key Actions

1. Develop, with partners, a communication program to encourage people to reduce the use of phosphorus.
2. Monitor the performance of waste water treatment at park facilities, campgrounds, day use areas and Outlying Commercial Accommodations (OCAs); take corrective action as required.
3. Ensure that alpine huts and OCAs identify benchmarks, monitor water quality and introduce corrective measures where necessary to prevent contamination.
4 Prepare guidelines and targets for acceptable sewage treatment at facilities not connected to a treatment plant.

Park Zoning

9.0 PARK ZONING

9.1 National Park Zoning System

The zoning system classifies areas according to their need for protection. The suitability of areas for visitor activities is also a consideration in zoning decisions. The system's five categories are described in *Parks Canada: Guiding Principles and Operational Policies* (Parks Canada, 1994).

Large tracts of protected wilderness are becoming a scarce and valuable resource. From an ecological perspective, their importance lies in their ability to support natural processes and to serve as benchmarks. They are critical for animal species with large home ranges and for migrating wildlife.

The National Parks Act provides for the designation, by regulation, of wilderness areas of the park. A high level of ecological integrity is synonymous with wilderness. The intent of the wilderness declaration is to assist in ensuring a high level of ecological integrity by preventing activities likely to impair wilderness character. The perpetuation of ecosystems with minimal human interference is the key consideration in maintaining wilderness character. Only development and activities required for essential services and the protection of the park resources will be permitted in designated wilderness areas. Designated wilderness is one of a range of tools which will be used to ensure the preservation of wilderness value. Human use levels in declared wilderness areas will be managed based on landscape management unit objectives and human use strategies.

Well over 90% of the park lands have beeen recommended for wilderness declaration. Wilderness areas are generally consisitent, but do not coincide exactly with the Zone II areas of the park. For example, utility and service corridors that cut through Zone II areas, and a small Zone II areas between transportation corridors, may not be declared. Appropriate Zone II, and Zone I areas identified in this plan will be declared.

9.2 Zone I - Special Preservation (3.6% of the park)

Zone I contains unique, threatened or endangered natural or cultural features, or the best examples of the features representing a natural region. Preservation is the key consideration. Motor vehicles are not permitted. This plan identifies three Zone I areas (Ice River Igneous Complex, Mount Wardle-Verendrye, and Dry Gulch-Stoddart Creek) that were also included in the 1988 management plan. In addition, all Burgess Shale Outcrops occurring along the Cathedral Escarpment in Kootenay National Park of Canada will now be designated Zone I.

Burgess Shale Outcrops

The exquisitely preserved fossils of soft-bodied organisms, found in the Burgess Shale level of the Stephen Formation, are one of the most significant fossil discoveries in the world. The Stephen Formation is mostly contained in Yoho National Park of Canada but extends into Kootenay National Park of Canada along its north-east boundary. Fossil locations in Kootenay National Park of Canada will be managed as Zone I - Special Protection areas in recognition of their international significance.

Ice River Igneous Complex

The exposed rock strata of Banff, Jasper, Kootenay and Yoho National Parks of Canada is almost entirely sedimentary and metamorphic in nature. The only significant exception to this is the Ice River Igneous Complex which has a small exposure near Mt. Sharp in Kootenay National Park of Canada. The Ice River Igneous Complex consists almost entirely of alkaline rocks including sodalite and nepheline syenite. It is also the source of edingtonite and natrolite crystals of exceptional quality.

Mt. Wardle and Mt. Verendrye

The Mt. Wardle and Mt. Verendrye area contains the summer and winter range of the largest mountain goat population in the park. Mt. Wardle is the only area in the four mountain parks where mountain goats winter at montane elevations. The area also contains important grizzly bear and cougar habitats, as well as representative elements of virtually all the ecological zones which occur in the park. The area is relatively inaccessible and has no man-made trails or other facilities.

Dry Gulch - Stoddart Creek

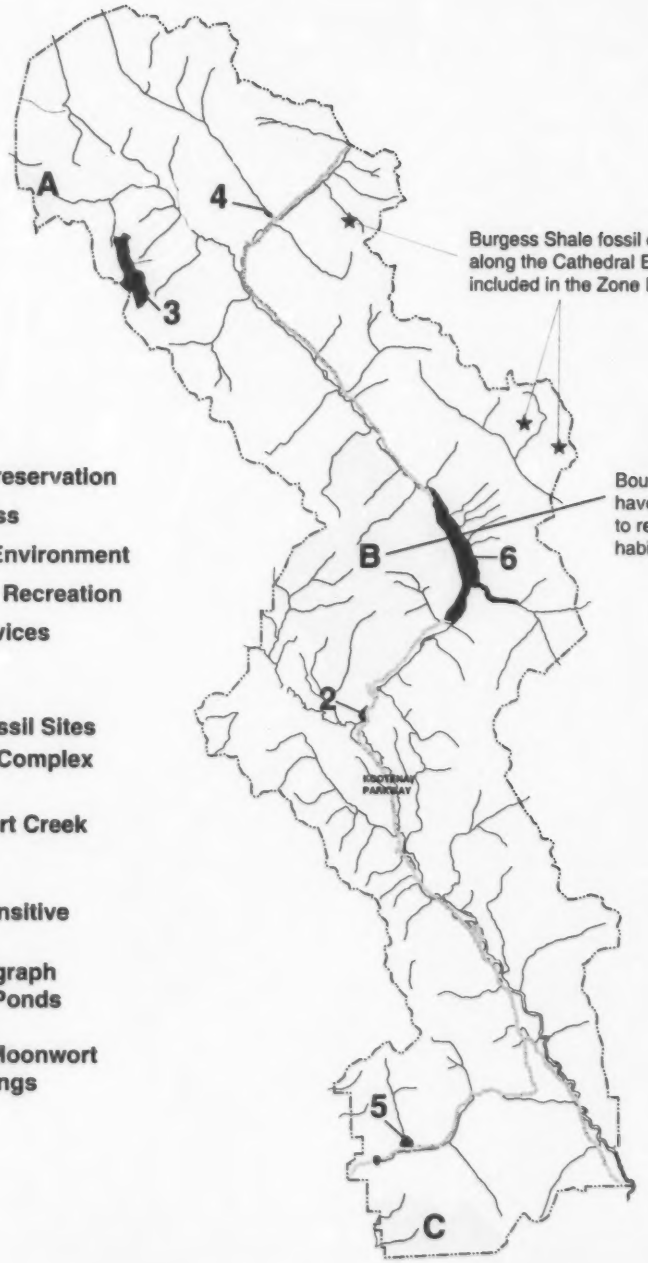
This area of southwestern Kootenay National Park of Canada represents the Western Ranges and eastern Rocky Mountain Trench. The climate is warmer and drier than elsewhere in the four parks, resulting in vegetation associations typical of areas to the south. This is the only area in the Canadian national parks system where the dry Douglas fir-ponderosa pine-wheatgrass vegetation type occurs. The occurrence of ponderosa pine is the most northerly representation in the Columbia Valley. A number of other plant species are restricted to this area including prickly-pear cactus. The area contains major winter and summer ranges for bighorn sheep, mountain goat, and mule deer, and is important to cougar.

9.3 Zone II - Wilderness (94.65% of the park)

Zone II contains extensive areas that represent the natural region and that are conserved in a wilderness state. Protecting ecosystems where there is minimal human interference is the key consideration. Zone II areas offer opportunities for visitors to experience, first hand, the park's ecosystems and require few, if any, services and facilities. In much of Zone II visitors have the opportunity to experience remoteness and solitude. Motorized access is not permitted.

Much of this land consists of steep mountain slopes, glaciers and lakes. Zone II areas cannot support high levels of visitor use and development. Facilities are restricted to trails, backcountry campgrounds, alpine huts, trail shelters and warden patrol facilities.

Map 3
Park Zoning



Burgess Shale fossil occurrences found along the Cathedral Escarpment have been included in the Zone I designation

Boundaries for the Mt. Wardle, Zone I, have been modified from the 1988 plan to reflect more accurately critical wildlife habitat areas.

LEGEND

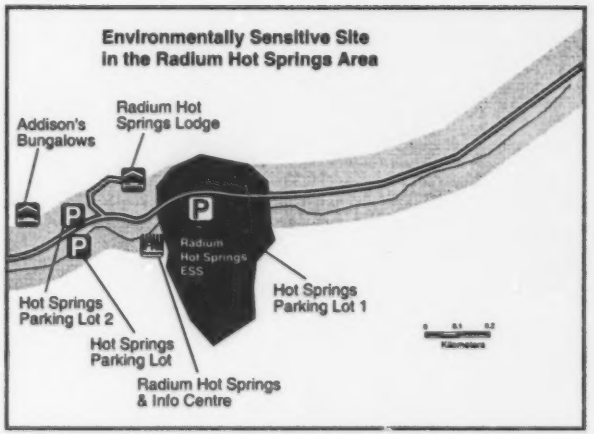
- Zone I - Special Preservation
- Zone II - Wilderness
- Zone III - Natural Environment
- Zone IV - Outdoor Recreation
- Zone V - Park Services

ZONE I Areas

- ★ Burgess Shale Fossil Sites
- A Ice River Igneous Complex
- B Mount Wardle
- C Dry Gulch/ Stoddart Creek

Environmentally Sensitive Sites (ESS's)

1 - Iron Gates Pictograph
2 - Sora & Sundew Ponds
3 - Wolverine Pass
4 - Marble Canyon Moonwort
5 - Radium Hot Springs
6 - Wardle Flats



9.4 Zone III - Natural Environment (0% of the park)

In Zone III areas, visitors can discover the park's natural and cultural heritage through recreational activities that require a few rustic services and facilities. No motorized access is permitted, except for snowmobiles used to set cross country ski tracks and service backcountry facilities and off-season servicing by helicopter.

There are no Zone III areas in Kootenay National Park of Canada. Two areas (near Marble Canyon and Kootenay Crossing) previously designated Zone III in the 1988 plan are now included in Zone II.

9.5 Zone IV - Outdoor Recreation (1.6% of the park)

Zone IV offers a range of opportunities for understanding and enjoying the park's heritage. This zone includes front-country facilities and park roads. Motorized vehicles are permitted. In Kootenay, Zone IV includes frontcountry facilities and the rights-of-way along park roads.

9.6 Zone V - Park Services (0.013% of the park)

Zone V includes areas where there is a concentration of visitor services and support facilities. The only Zone V area in Kootenay is the concentration of facilities in Sinclair Canyon near the Hot Springs.

9.7 Environmentally Sensitive Sites (ESS)

This designation applies to areas with significant and sensitive features that require special protection. Area specific guidelines for each ESS will be developed to identify appropriate levels and types of visitor use. These guidelines will reflect the high priority placed on the protection of these sensitive areas.

New Environmentally Sensitive Sites:

1. Iron Gate Pictographs in Sinclair Canyon
    - sensitive cultural resource.
2. Sora and Sundew Pond above Kootenay Crossing
    - rare plants.
    - important waterfowl breeding habitat.
    - amphibian habitat.
3. Wolverine Pass
    - only pass through Vermilion Range.
    - important wildlife corridor connecting to Dainard Creek and Moose Creek on provincial lands.
    - significant for large carnivores and goats.
    - one of the largest alpine meadows in the Park.
4. Moonwort site near Marble Canyon
    - rare plant listed as species of special concern by the British Columbia Conservation Data Centre.
    - very small site (less than one square kilometre).
5. Radium Hot Pools
    - unique geology, fauna and flora.
    - very small site (less than one square kilometre).
6. Wardle Flats
    - significant area for wildlife (wolf, grizzly bear, black bear).

Summary of the Environmental Assessment

10.0 SUMMARY OF THE ENVIRONMENTAL ASSESSMENT

The following summarizes the highlights of a separate report "Environmental Assessment of the Kootenay National Park of Canada Management Plan 2000".

10.1 Background

The environmental assessment was prepared to ensure the cumulative effects of policies, programs, and proposed actions are understood, and do not contradict the mandate of the *National Parks Act* or ecological integrity.

Settlement, development, and tourism over the past century have stressed the park and the regional ecosystem. The issues of greatest concern are:

- landscape fragmentation and loss of habitat connectivity as a result of development and human use;
- the effects of non-native species, development, and flow regimes on aquatic and riparian systems;
- alteration of vegetation succession due to lack of fire and human modification of the landscape; and
- wildlife mortality.

10.2 The Proposal and Its Impact

The *Kootenay National Park of Canada Management Plan* proposes many actions to achieve ecological integrity while at the same time providing opportunities for the public to understand and enjoy their natural and cultural heritage.

Aquatic Ecosystems

The introduction of non-native fish species, transportation infrastructure, and effluent from visitor facilities—all these activities have altered the park's aquatic ecosystems. The plan proposes ways to restore aquatic biodiversity. These include:

- the re-introduction of native species where appropriate;
- minimal manipulation of hydrological process during maintenance of transportation infrastructure; and
- better sewage treatment at park and visitor facilities.

Natural Processes

Decades of effective forest fire suppression have substantially changed the park's vegetation. In general, forests are becoming older and less diverse. Important plant communities such as montane grasslands, shrublands, and young forest stands are declining as closed canopy forests become established. Non-native plants compete with native species. Proposed actions include:

- restoring the role of fire as a natural disturbance, except where limited by safety concerns;
- perpetuating the natural range of vegetation disturbance;
- preventing the introduction of non-native species; and
- controlling or eliminating established non-native species, where practical.

Wildlife

Human activity in the regional ecosystem has resulted in loss of habitat, habitat fragmentation, reduced habitat effectiveness, habituation, displacement, and wildlife mortality. The following actions address key wildlife issues:

- habitat effectiveness targets for key indicator species such as grizzly bears
- maintaining or restoring wildlife movement in the Vermilion, Kootenay and Beaverfoot valleys as well as the Dainard Creek and Wolverine Pass areas
- reducing wildlife mortality on the Kootenay Parkway.

All these actions stress the need to monitor effectiveness, enlist the cooperation of adjacent provincial agencies, communities and other stakeholders, and increase public understanding of human impacts on wildlife.

Visitor Services and Facilities

Parks Canada has made commitments regarding development, appropriate use, and human use management in Kootenay National Park of Canada. Human use management will integrate ecological and social objectives. Habitat effectiveness targets will help to maintain secure habitat for large carnivores while providing a range of visitor opportunities. No new land will be released for commercial or other development within the park. Existing campgrounds will be evaluated and minor adjustments will be made, if necessary, to respect ecological integrity or accommodate visitor needs. Limits will be placed on use of both frontcountry and backcountry trails and campsites where that use conflicts with environmental protection goals, particularly regarding carnivores.

Outlying Commercial Accommodation

It is anticipated that the new guidelines for OCAs will result in development that will be lower than the existing guidelines.

Heritage Tourism

The management plan calls for a heritage tourism strategy to encourage tourism that is sustainable and compatible with national park values. This will be accomplished by promoting appropriate activities and cultivating an appreciation of the park's natural and cultural heritage. Through a collaborative process involving local/regional businesses, First Nations, and other stakeholders, Kootenay National Park of Canada will prepare a heritage tourism strategy within one year.

Open Management

Open management will be achieved by continual public involvement, in a Development Review Process that involves public review, and coordination with regional land managers on research, information management, and decisions that affect the larger region. The plan recognizes the need to improve on existing mechanisms to involve stakeholders.

Environmental Stewardship

Through its Sustainable Development Strategy (1997), Parks Canada is committed to be a leader in environmental stewardship and sustainable development. Kootenay National Park of Canada will develop and implement an Environmental Management System with specific stewardship and sustainable development targets and performance measures. The park will report on its achievement to Parliament.

10.3 Cumulative Effects

The management plan's actions address the main ecological concerns facing Kootenay National Park of Canada. This environmental assessment does not evaluate individual actions. Instead it considers the combined effect of the actions to determine if the park is moving toward or away from improved ecological integrity.

Cumulative environmental effects are the combined impacts of human activities over time and space. Although an environment may be resilient to a small number of projects, the incremental effect of a large number of stresses arising from many projects and activities may reduce the ecological integrity of landscapes, and even larger regions. The impact of projects may originate at the local level, but tend to accumulate at the ecosystem or landscape levels. In some cases the impact may be so significant that permanent changes result.

The plan supports heritage tourism and addresses key issues related to ecological and commemorative integrity. Actions target identified stresses on important components of the park ecosystem and are intended to reduce that stress or enhance visitor experiences. Some actions will have immediate beneficial effect. Others, such as reclamation of the ecological integrity of the aquatic biome will take many years to accomplish. Restoration of some natural processes such as vegetation succession will take decades to achieve.

The plan sets performance targets and thresholds to protect some key ecological components. For example:

- habitat effectiveness targets for each of the park's landscape management units
- reducing human-caused mortality of grizzly bears to less than 1% of the population per year
- reducing wildlife mortality on roads and railways by 25%
- restoring 50% of the long-term fire cycle—equivalent to approximately 3.5 square kilometres per year
- thresholds and performance measures for 14 environmental components including solid waste, contaminated sites, PCBs, and wastewater treatment.

An integrated monitoring program will assess the success of key actions and identify areas where change is required.

It is clear the cumulative effect of the proposals will enhance ecological integrity. Fewer animals will die from accidents or conflicts with people. Habitat effectiveness will improve and habitat fragmentation will decrease. A more normal predator-prey interaction will be possible. The incidence of non-native plant species will decrease. Natural vegetation succession will be enhanced, and the threat of uncontrollable wildfire will be reduced. Visitor stress on the park should be reduced by improved management of people's activities. Development limits are better defined than before; all stakeholders know what the future holds for services and facilities in Kootenay National Park of Canada.

10.4 The Policy

As explained elsewhere in this document, ecological integrity "shall be the first priority" in making decisions about the management of national park lands. The importance of ecological integrity figures prominently in the *Kootenay National Park of Canada Management Plan*. The vision for Kootenay National Park of Canada is consistent with the *National Parks Act* and *Parks Canada Guiding Principles and Operational Policies*.

10.5 Public Input

The preparation of the management plan has offered ample opportunity for public input and expert review. Since the previous plan was approved there have been numerous public surveys pertaining to future management of the parks. The Banff-Bow Valley Task Force (1994-1996) established a round table that represented 14 sectors with an interest in national parks. Parks Canada's response to the Task Force recommendations formed the basis for the 1997 *Banff National Park Management Plan* from which the *Kootenay National Park of Canada Management Plan* has taken key policy direction. In the spring of 1999 Parks Canada introduced the *Kootenay National Park Management Plan Concept* for review by the public. This document set out specific management plan proposals and options for future direction. The plan concept was sent to 1,500 individuals at their request, and was discussed with members of the public at open houses.

Parks Canada has analyzed public comments and incorporated suggestions as appropriate. With Ministerial approval of the plan, many components of the plan are subject to environmental assessment and public review as specific projects are brought forward for implementation.

10.6 Conclusion

The *Kootenay National Park of Canada Management Plan* is consistent with national park legislation and policies. Satisfactory peer review and public input have taken place and the proposals have been amended where appropriate. The proposed courses of action are feasible given existing technology. While uncertainties exist with respect to stressors outside the park, the plan highlights the need for more involvement by neighbouring land management agencies and stakeholders.

The environmental assessment finds the proposals unlikely to cause significant negative environmental impact. The cumulative effect of the plan will be to move towards improved ecological integrity.